

Safety Data Sheets

All

All

Stepan

01/11/2022

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| 3M Super 77 Multipurpose Adhesive (Aerosol) | 3M Industrial Adhesives and Tapes Division | 62-4977-2924-4, 62-4977-2928-5, 62-4977-4730-3, 62-4977-4922-6, 62-4977-4923-4, 62-4977-4925-9, 62-4977-4929-1, 62-4977-4930-9, 62-4977-4935-8, 7000046597, 7000000931, 7000121447, 7010366502, 7010366503, 7010330395 | 04/13/2021 | 15 |
| 3M Super 77 Multipurpose Adhesive (Aerosol) | 3M Industrial Adhesives and Tapes Division | 16-3472-4 | 05/21/2018 | 33 |
| 771 NICKEL ANTI-SEIZE LUBRICANT 8OZ BT | ITW Permatex | | 02/24/2020 | 46 |
| 771 NICKEL ANTI-SEIZE LUBRICANT 8OZ BT | ITW Permatex | | 06/13/2019 | 55 |
| ABC Dry Chemical Fire Extinguishant | Buckeye Fire Equipment Company | | 08/05/2019 | 64 |
| ABC DRY CHEMICAL FIRE EXTINGUISHANT | BUCKEYE FIRE EQUIPMENT COMPANY | | 04/01/2015 | 69 |
| ABC Dry Chemical Fire Extinguishant | AMEREX CORPORATION | CH555, F13, F11 | 03/13/2018 | 78 |
| Acetylene | Airgas USA, LLC | | 11/11/2020 | 90 |
| AEROKROIL | Kano Laboratories, Inc. | | 07/01/2020 | 101 |
| AEROKROIL | Kano Laboratories, Inc. | | 11/10/2020 | 107 |
| ANCHORLUBE G-771 | Anchor Chemical Company | | 08/26/2018 | 113 |
| ANCHORLUBE G771 | Anchor Chemical Company | | 01/05/2015 | 118 |
| ANSUL ABC Multipurpose Dry Chemical Agent - Stored Pressure System | Tyco Fire Protection Products | | 02/13/2019 | 121 |
| Argon | Airgas USA, LLC | 1004 | 01/05/2021 | 130 |
| Armor All Cleaning Wipes | The Armor All/STP Products Company | | 01/19/2015 | 141 |
| Armor All Cleaning Wipes | The Armor All/STP Products Company | | 01/19/2015 | 147 |
| AST-PPD Plumbers Pipe Dope | Anti-Seize Technology | | 12/11/2017 | 153 |

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| CARQUEST Wearever DOT 3 Brake Fluid | Warren Oil Company, Inc. | | 05/26/2015 | 159 |
| Dawn Ultra Dishwashing Liquid, Original Scent - Dawn Ultra Dishwashing Liquid, Pomegranate Awakening (97591967_RET_NG), Dawn Ultra Dishwashing Liquid, Apple Orchard Harvest (97591968_RET_NG), Dish Care | Procter & Gamble | 97591965_RET_NG | 10/05/2015 | 170 |
| Heavy Duty Degreaser II | CRC Industries, Inc. | | 02/15/2018 | 177 |
| EXTREME DUTY SILICONE | CRC INDUSTRIES (AUST) PTY LIMITED | | 07/30/2020 | 185 |
| Formula 409 Multi-Surface Cleaner | The Clorox Company | | 08/08/2017 | 192 |
| Formula 409 Multi-Surface Cleaner | The Clorox Company | | 08/08/2017 | 201 |
| GOJO ORIGINAL FORMULA Hand Cleaner | GOJO Industries, Inc. | | 02/28/2018 | 210 |
| GOJO ORIGINAL FORMULA Hand Cleaner | GOJO Industries, Inc. | | 02/28/2018 | 229 |
| GREAT STUFF Gaps & Cracks Insulating Foam Sealant 12oz HC EF | The Dow Chemical Company | | 01/06/2016 | 248 |
| GREAT STUFF Gaps & Cracks Insulating Foam Sealant 12oz HC EF | The Dow Chemical Company | | 01/29/2016 | 267 |
| GREAT STUFF Pestblock Insulating Foam Sealant 12oz HC ES STWQSS 12ct | The Dow Chemical Company | | 01/06/2016 | 286 |
| GREAT STUFF PRO Gun Cleaner 12oz HC 12ct | The Dow Chemical Company | | 04/13/2016 | 305 |
| Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29), Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18) Mounted Point | United Abrasives, Inc. | | 02/15/2017 | 318 |
| Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29), Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18), Mounted Points, UA-MTX, UA-GFX, A36F, A54F | United Abrasives, Inc. | | 03/31/2015 | 324 |
| Heavy Duty Degreaser II | CRC Industries, Inc. | | 02/15/2018 | 330 |
| HEET® Gas Line Antifreeze Line | Gold Eagle Co. | 28201; 28203; 28205; 28213; 28219 | 12/29/2020 | 338 |

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| IRWIN Chalk ? Red, Permanent | IRWIN Tools | | 12/23/2016 | 346 |
| IRWIN Chalk ? Red, Permanent | IRWIN Tools | | 12/23/2016 | 352 |
| KRYLON OSHA Colors Safety Yellow | Krylon Products Group | 1813 | 08/25/2021 | 358 |
| KRYLON OSHA Colors Safety Yellow | Krylon Products Group | 1813 | 04/13/2021 | 376 |
| KRYLON OSHA Colors Safety Yellow | Krylon Products Group | 1813 | 05/22/2019 | 394 |
| KRYLON QUIK-MARK Water-Based Inverted Marking Paint (APWA) Brilliant Orange | Krylon Products Group | | 03/31/2020 | 411 |
| KRYLON RUST TOUGH Enamel (aerosol) Aluminum | Krylon Products Group | | 08/12/2019 | 427 |
| KRYLON RUST TOUGH Enamel (aerosol) Gloss White | Krylon Products Group | K09200 | 12/19/2019 | 444 |
| KRYLON RUST TOUGH Enamel (aerosol) Gloss White | KRYLON Products Group | K09200 | 01/11/2021 | 462 |
| LUBRI-JOINT | LA-CO Industries, Inc. | | 04/29/2015 | 482 |
| Lysol Brand Disinfectant Spray, All Scents (Aerosol) | Reckitt Benckiser - Morris Corporate Center IV | | 09/25/2018 | 487 |
| MACROPOXY 646 Fast Cure Epoxy (Part B) - Hardener | THE SHERWIN-WILLIAMS COMPANY | B58V600 | 05/21/2020 | 502 |
| MACROPOXY 646 Fast Cure Epoxy Coating (Part A) Mill White | THE SHERWIN-WILLIAMS COMPANY | | 02/08/2020 | 518 |
| MACROPOXY 646 Fast Cure Epoxy Coating (Part B) Hardener | THE SHERWIN-WILLIAMS COMPANY | | 01/18/2021 | 534 |
| MACROPOXY 646 Fast Cure Epoxy Coating (Part B), Hardener | THE SHERWIN-WILLIAMS COMPANY | | 02/10/2020 | 550 |
| Marking Chalk Red | Keson Industries | | 01/02/2021 | 566 |
| Marvel Air Tool Oil | Marvel Oil Company, Inc | MM85R1 (50100), MM080R (50093) | 01/26/2017 | 574 |
| Marvel Air Tool Oil | Marvel Oil Company | | 03/10/2015 | 582 |
| Mr. Muscle Oven & Grill Cleaner | Sealed Air | | 05/28/2015 | 590 |
| NICKEL-GRAF Nickel and Graphite Based ANTI-SEIZE COMPOUND | ANTI-SEIZE TECHNOLOGY | | 09/09/2015 | 595 |
| NICKEL-GRAF Nickel and Graphite Based ANTI-SEIZE COMPOUND | ANTI-SEIZE TECHNOLOGY | | 12/19/2017 | 603 |

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| Nitrogen | Air Products and Chemicals, Inc | | 08/01/2016 | 611 |
| ORGANIC BONDED GRINDING AND CUTTING WHEELS | METABO CORPORATION | | 08/28/2009 | 620 |
| ORGANIC BONDED GRINDING AND CUTTING WHEELS | METABO CORPORATION | | 08/28/2009 | 622 |
| OVERAL SSPR 6PK GLOSS ORANGE | Rust-Oleum Corporation | | 08/06/2018 | 624 |
| Oxygen | Airgas USA, LLC | | 09/22/2020 | 631 |
| Oxygen | Air Products and Chemicals, Inc | | 03/29/2021 | 642 |
| PB Penetrating Catalyst | The Blaster Corporation | | 09/24/2019 | 652 |
| PB Penetrating Catalyst (Aerosol) | The Blaster Corporation | | 02/03/2016 | 659 |
| PIPE THREAD SEAL TAPE; Slic-tite PTFE PIPE THREAD TAPE; CORD OF PTFE | LA-CO Industries, Inc. | | 05/06/2015 | 669 |
| PIPE THREAD SEAL TAPE; Slic-tite PTFE PIPE THREAD TAPE; CORD OF PTFE | LA-CO INDUSTRIES, INC. | | 05/06/2015 | 674 |
| Prestone Power Steering Fluid | Prestone Products Corporation | | 05/06/2014 | 679 |
| Prestone Power Steering Fluid | Prestone Products Corporation | | 05/06/2014 | 685 |
| PRO LSPR 6PK MARK CAUTION BLUE | Rust-Oleum Corporation | | 05/22/2017 | 691 |
| PRO LSPR 6PK MARK CAUTION BLUE | Rust-Oleum Corporation | | 05/22/2017 | 697 |
| PVTLBL SSPR 12PK QUICKC FLAT BLACK | Rust-Oleum Corporation | J2853812 | 11/04/2015 | 703 |
| PVTLBL SSPR 12PK QUICKC FLAT BLACK | Rust-Oleum Corporation | | 02/04/2020 | 709 |
| Pyrosnuff Textile | Buckeye Fabric Finishing Company | | 01/01/2020 | 715 |
| Real Cool Snoop | Swagelok | | 01/03/2016 | 717 |
| SCRUBS Hand Cleaner Towels | ITW PRO BRANDS | | 06/03/2019 | 727 |
| SCRUBS Hand Cleaner Towels | ITW Pro Brands | | 06/03/2019 | 734 |

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| SCRUBS In-A-Bucket | ITW Pro Brands | 42201, 42210, 42230, 42232, 42256, 42260, 42272, 42274, 4228 | 03/05/2021 | 741 |
| Sharpie Accent Highlighters - Tank, Generation, Pocket, Mini, Grip, Liquid Pen, Jumbo, Retractable, and Bladetip | Sanford L.P. | | 03/16/2012 | 749 |
| Sharpie Fine Point Marker, Sharpie Ultra Fine Point Marker, Sharpie Extra Fine Marker, Sharpie Chisel Tip Marker, Sharpie Twin Tip Marker, Super Sharpie Marker, Super Sharpie Twin Tip Marker, Sharpie Mini Fine Point Marker, Sharpie Micro Marker | Newell Rubbermaid, Inc. | | 01/24/2012 | 751 |
| SILIKROIL AEROSOL | Kano Laboratories, Inc. | | 01/10/2020 | 753 |
| Snoop | Swagelok | | 03/26/2012 | 760 |
| Snoop | Swagelok Manufacturing Company | | 04/25/2020 | 765 |
| Snoop liquid leak detector | Swagelok Manufacturing Company | | 04/24/2020 | 771 |
| STP PRO Formula Motor Oil: 5W-20, 5W-30, 10W30 | The Armor All/STP Products Company | | 11/20/2014 | 776 |
| STRUST +SSPR 6PK GLOSS ANTIQUE WHITE | Rust-Oleum Corporation | | 04/23/2019 | 781 |
| Sun Brite All Purpose Bleach | Champion Packaging & Distribution | CH110 | 06/18/2020 | 787 |
| SUPERIOR SNO-N-ICE MELTER | CP Industries, LLC | | 01/30/2015 | 794 |
| SUPERIOR SNO-N-ICE MELTER | CP Industries, LLC | | 01/30/2015 | 799 |
| TAPFREE 2 | Winfield Brooks Company | | 01/09/2018 | 804 |
| TFE Pipe Thread Sealant w/PTFE | Anti-Seize Technology | | 04/23/2015 | 811 |
| TFE Pipe Thread Sealant w/PTFE | Anti-Seize Technology | | 12/11/2017 | 816 |
| TFE Pipe Thread Sealant w/PTFE | Anti-Seize Technology | | 12/11/2017 | 821 |
| TFE Pipe Thread Sealer With PTFE | Anti-Seize Technology | | 12/11/2017 | 826 |
| Valvoline EXTRA STRENGTH STARTING FLUID | Niteo Products, LLC | 816759 | 07/31/2015 | 831 |
| WD-40 Aerosol | WD-40 Company | | 03/05/2019 | 854 |

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| WELD-ON P-70 Low VOC Primer for PVC and CPVC Plastic Pipe | IPS Corporation | | 01/01/2019 | 859 |
| Weld-On Soft Seal Plumbers Putty | IPS Corporation | | 04/01/2015 | 861 |
| Weld-On® Soft Seal Plumbers Putty | IPS Corporation | | 06/27/2018 | 863 |
| Welding blanket | Industries 3R inc. | | 02/01/2015 | 865 |
| WL 739 Silver Galvanizing Compound Aerosol | Sprayon Products Group | | 10/15/2020 | 867 |
| WL 740 Zinc-Rich Galvanizing Compound Aerosol | Sprayon Products Group | SC0740000 | 05/13/2020 | 889 |
| WL 740 Zinc-Rich Galvanizing Compound Aerosol | Sprayon Products Group | SC0740000 | 11/27/2019 | 908 |
| WL739 Silver Galvanizing Compound Aerosol | Sprayon Products Group | | 11/27/2019 | 927 |
| WL740 Zinc-Rich Galvanizing Compound Aerosol | Sprayon Products | | 04/27/2021 | 949 |

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
 Substance name : Real Cool Snoop

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Liquid leak detector to be used on external surfaces only. Optimum operating temperatures are between -65 °F and 200 °F (-54 °C and 93 °C). For professional use only.

1.3. Details of the supplier of the safety data sheet

Swagelok
 29495 F.A. Lennon Drive
 Solon, OH 44139 - United States
 T 440-349-5600 - F 440-519-3304
www.swagelok.com

1.4. Emergency telephone number

Emergency number : **Infotrac:** North America: 1-800-535-5053 International: 1-352-323-3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US classification

Acute Tox. 4 (Oral) H302
 Eye Irrit. 2 H319
 STOT RE 2 H373

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



GHS07

GHS08

Signal word (GHS US) : Warning

Hazard statements (GHS US) : H302 - Harmful if swallowed
 H319 - Causes serious eye irritation
 H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) : P260 - Do not breathe mist or spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P314 - Get medical advice/attention if you feel unwell.
 P330 - Rinse mouth.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name : Real Cool Snoop

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| Name | Product identifier | % | GHS US classification |
|--|-----------------------|----------|--|
| 1,2-Ethanediol | (CAS-No.) 107-21-1 | 0.1 - 60 | Acute Tox. 4 (Oral), H302 STOT RE 2, H373 |
| D-Glucopyranose, oligomeric, decyl octyl glycosides | (CAS-No.) 68515-73-1 | 0.1 - 1 | Eye Dam. 1, H318 |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides | (CAS-No.) 110615-47-9 | 0.1 - 1 | Skin Irrit. 2, H315 Eye Dam. 1, H318 |

*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

*A range of concentration as prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

3.2. Mixtures

Not applicable

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : Prolonged exposure may cause irritation.
- Symptoms/effects after skin contact : Prolonged exposure may cause irritation.
- Symptoms/effects after eye contact : Contact causes severe irritation with redness and swelling of the conjunctiva.
- Symptoms/effects after ingestion : This material is harmful orally and can cause adverse health effects or death in significant amounts. Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage.
- Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or SDS at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not considered flammable but may burn at high temperatures.
- Explosion hazard : Product is not explosive.
- Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Avoid breathing (Mist or Vapor).

6.1.1. For non-emergency personnel

- Protective equipment : Use appropriate personal protection equipment (PPE).
- Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle in accordance with standard industrial practices and ensure appropriate ventilation. Avoid all contact with skin, eyes, clothing. Do not release into the environment.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing vapors or mist.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash your hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from heat. Keep container closed when not in use.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Real Cool Snoop | |
|--|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |
| 1,2-Ethanediol (107-21-1) | |
| OSHA | Not applicable |
| D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1) | |
| ACGIH | Not applicable |
| OSHA | Not applicable |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9) | |
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
- Personal protective equipment : Avoid all unnecessary exposure.
- Materials for protective clothing : Impervious clothing.
- Hand protection : Wear protective gloves.

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| | |
|------------------------|--|
| Eye protection | : Chemical goggles or safety glasses. |
| Respiratory protection | : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection. |
| Other information | : Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|----------------------------------|
| Physical state | : Liquid |
| Color | : Colorless |
| Odor | : Mild |
| Odor threshold | : No data available |
| pH | : 6 - 7.5 |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 387 °F (197.22 °C) |
| Flash point | : > 230 °F (> 110 °C) Closed Cup |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : 1.1 |
| Solubility | : Soluble in water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Hazardous fumes. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|----------------|-------------------------------|
| Acute toxicity | : Oral: Harmful if swallowed. |
|----------------|-------------------------------|

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| | |
|----------------------------------|----------------------------------|
| Real Cool Snoop | |
| ATE US (oral) | 833.3333333333 mg/kg body weight |
| 1,2-Ethanediol (107-21-1) | |
| LD50 oral rat | 4700 mg/kg |
| LD50 dermal rabbit | 9350 µl/kg |
| ATE US (oral) | 500 mg/kg body weight |

| | |
|--|---|
| Skin corrosion/irritation | : Not classified pH: 6 - 7.5 |
| Serious eye damage/irritation | : Causes serious eye irritation. pH: 6 - 7.5 |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |

| | |
|----------------------------------|------------------------|
| 1,2-Ethanediol (107-21-1) | |
| NOAEL (oral,rat) | 4700 mg/kg body weight |

| | |
|---|---|
| Specific target organ toxicity – repeated exposure | : May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. Harmful if swallowed. |
| Symptoms/effects after inhalation | : Prolonged exposure may cause irritation. |
| Symptoms/effects after skin contact | : Prolonged exposure may cause irritation. |
| Symptoms/effects after eye contact | : Contact causes severe irritation with redness and swelling of the conjunctiva. |
| Symptoms/effects after ingestion | : This material is harmful orally and can cause adverse health effects or death in significant amounts. Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage. |
| Chronic symptoms | : May cause damage to organs through prolonged or repeated exposure. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|---|
| D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1) | |
| LC50 fish 1 | 170 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static]) |

12.2. Persistence and degradability

| | |
|----------------------------------|------------------|
| Real Cool Snoop | |
| Persistence and degradability | Not established. |
| 1,2-Ethanediol (107-21-1) | |
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| | |
|----------------------------------|------------------|
| Real Cool Snoop | |
| Bioaccumulative potential | Not established. |
| 1,2-Ethanediol (107-21-1) | |
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

Effect on ozone layer : No additional information available
Effect on the global warming : No known effects from this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to meet all regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT
Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

| | |
|--|--|
| 1,2-Ethanediol (107-21-1) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 5000 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard |
| D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| EPA TSCA Regulatory Flag | FR1 PMN |

15.2. International regulations

CANADA

No additional information available

| | |
|---|--|
| D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9) | |
| Listed on the Canadian DSL (Domestic Substances List) | |

EU-Regulations

No additional information available

| | |
|---|--|
| D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1) | |
| Listed on the EU NLP (No Longer Polymers) inventory | |

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

1,2-EthanedioI (107-21-1)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

| | |
|------------|---|
| ----- H302 | Harmful if swallowed |
| ----- H315 | Causes skin irritation |
| ----- H318 | Causes serious eye damage |
| ----- H319 | Causes serious eye irritation |
| ----- H373 | May cause damage to organs through prolonged or repeated exposure |

GHS US SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Safety Data Sheet

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| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-3472-4 | Version Number: | 41.00 |
| Issue Date: | 04/13/21 | Supersedes Date: | 03/17/21 |

SECTION 1: Identification

1.1. Product identifier

3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol)

Product Identification Numbers

62-4977-2924-4, 62-4977-2928-5, 62-4977-4730-3, 62-4977-4922-6, 62-4977-4923-4, 62-4977-4925-9, 62-4977-4929-1, 62-4977-4930-9, 62-4977-4935-8

7000046597, 7000000931, 7000121447, 7010366502, 7010366503, 7010330395

1.2. Recommended use and restrictions on use

Recommended use

Adhesive aerosol, General Purpose Aerosol adhesive

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(13)) for consumer paint or coating removal.

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Industrial Adhesives and Tapes Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Aerosol: Category 1.

Gas Under Pressure: Liquefied gas.

Serious Eye Damage/Irritation: Category 2A.

Reproductive Toxicity: Category 1B.

Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Gas cylinder | Exclamation mark | Health Hazard |

Pictograms**Hazard Statements**

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes serious eye irritation.

May cause drowsiness or dizziness.

May damage fertility or the unborn child.

May displace oxygen and cause rapid suffocation.

Causes damage to organs:

cardiovascular system |

Causes damage to organs through prolonged or repeated exposure:

nervous system |

Precautionary Statements**General:**

Keep out of reach of children.

Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

Keep container tightly closed.

Store locked up in a well-ventilated place.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

Supplemental Information:

Intentional concentration and inhalation may be harmful or fatal.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--|---------------|------------------------|
| Acetone | 67-64-1 | 20 - 30 Trade Secret * |
| Non-volatile components - NJTS Registry No. 04499600-6433P | Trade Secret* | 10 - 30 Trade Secret * |
| Propane | 74-98-6 | 15 - 25 Trade Secret * |
| 2-Methylpentane | 107-83-5 | 5 - 20 Trade Secret * |
| Cyclohexane | 110-82-7 | 5 - 15 Trade Secret * |
| Terpane Polymer | 31393-98-3 | 1 - 10 Trade Secret * |
| Ethanol | 64-17-5 | < 4 Trade Secret * |
| Hexane | 110-54-3 | < 3 Trade Secret * |
| PENTANE | 109-66-0 | < 2 Trade Secret * |
| Limestone | 1317-65-3 | < 1.5 Trade Secret * |
| toluene | 108-88-3 | < 1 Trade Secret * |
| Methylene Chloride | 75-09-2 | < 0.01 Trade Secret * |

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details. Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

| <u>Substance</u> | <u>Condition</u> |
|------------------|-------------------|
| Aldehydes | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|--------------------|------------|--------|--|---|
| 2-Methylpentane | 107-83-5 | ACGIH | TWA:500 ppm;STEL:1000 ppm | |
| toluene | 108-88-3 | ACGIH | TWA:20 ppm | A4: Not class. as human carcin, Ototoxicant |
| toluene | 108-88-3 | OSHA | TWA:200 ppm;CEIL:300 ppm | |
| PENTANE | 109-66-0 | ACGIH | TWA:1000 ppm | |
| PENTANE | 109-66-0 | OSHA | TWA:2950 mg/m3(1000 ppm) | |
| Hexane | 110-54-3 | ACGIH | TWA:50 ppm | Danger of cutaneous absorption |
| Hexane | 110-54-3 | OSHA | TWA:1800 mg/m3(500 ppm) | |
| Cyclohexane | 110-82-7 | ACGIH | TWA:100 ppm | |
| Cyclohexane | 110-82-7 | OSHA | TWA:1050 mg/m3(300 ppm) | |
| Limestone | 1317-65-3 | OSHA | TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3 | |
| Ethanol | 64-17-5 | ACGIH | STEL:1000 ppm | A3: Confirmed animal carcin. |
| Ethanol | 64-17-5 | OSHA | TWA:1900 mg/m3(1000 ppm) | |
| Acetone | 67-64-1 | ACGIH | TWA:250 ppm;STEL:500 ppm | A4: Not class. as human carcin |
| Acetone | 67-64-1 | OSHA | TWA:2400 mg/m3(1000 ppm) | |
| Propane | 74-98-6 | ACGIH | Limit value not established: | simple asphyxiant |
| Propane | 74-98-6 | OSHA | TWA:1800 mg/m3(1000 ppm) | |
| Methylene Chloride | 75-09-2 | ACGIH | TWA:50 ppm | A3: Confirmed animal carcin. |
| Methylene Chloride | 75-09-2 | OSHA | TWA:25 ppm;STEL:125 ppm | 29 CFR 1910.1052, SKIN |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

Half facepiece or full facepiece supplied-air respirator

Organic vapor respirators may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Physical state

Liquid aerosol

Color

Colorless

Specific Physical Form:

Aerosol

Odor

Sweet Odor, Fruity Odor

Odor threshold

No Data Available

pH

No Data Available

Melting point

No Data Available

Boiling Point

Not Applicable

Flash Point

-42.00 °F [*Test Method*: Tagliabue Closed Cup]

Evaporation rate

1.9 [*Ref Std*: ETHER=1]

Flammability (solid, gas)

Not Applicable

Flammable Limits(LEL)

No Data Available

Flammable Limits(UEL)

No Data Available

Vapor Pressure

[*Details*: Compressed gas]*Not Applicable*

Vapor Density

2.97 [*Ref Std*: AIR=1]

Density

0.726 g/ml

Specific Gravity

0.726 [*Ref Std*: WATER=1]

Solubility in Water

Nil

Solubility- non-water

No Data Available

Partition coefficient: n-octanol/ water

No Data Available

Autoignition temperature

No Data Available

Decomposition temperature

Not Applicable

Viscosity

Not Applicable

Hazardous Air Pollutants

<=0.4 % weight [*Test Method*: Calculated]

VOC Less H2O & Exempt Solvents

<=51 % [*Test Method*: calculated per CARB title 2]

Solids Content

≥22.4 %

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:**Single exposure may cause target organ effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause: Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Prolonged or repeated exposure may cause target organ effects:

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

| Ingredient | CAS No. | Class Description | Regulation |
|--------------------|---------|-------------------------------|---|
| Methylene Chloride | 75-09-2 | Grp. 2A: Probable human carc. | International Agency for Research on Cancer |
| Methylene Chloride | 75-09-2 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| Methylene Chloride | 75-09-2 | Cancer hazard | OSHA Carcinogens |

Additional Information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| Name | Route | Species | Value |
|-----------------|----------------------------|---------|--|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Inhalation-Vapor(4 hr) | | No data available; calculated ATE >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Propane | Inhalation-Gas (4 hours) | Rat | LC50 > 200,000 ppm |
| Acetone | Dermal | Rabbit | LD50 > 15,688 mg/kg |
| Acetone | Inhalation-Vapor (4 hours) | Rat | LC50 76 mg/l |
| Acetone | Ingestion | Rat | LD50 5,800 mg/kg |
| 2-Methylpentane | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| 2-Methylpentane | Inhalation-Vapor | | LC50 estimated to be > 50 mg/l |
| 2-Methylpentane | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Cyclohexane | Dermal | Rat | LD50 > 2,000 mg/kg |

| | | | |
|--|--------------------------------|--------|--|
| Cyclohexane | Inhalation-Vapor (4 hours) | Rat | LC50 > 32.9 mg/l |
| Cyclohexane | Ingestion | Rat | LD50 6,200 mg/kg |
| Non-volatile components - NJTS Registry No. 04499600-6433P | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Non-volatile components - NJTS Registry No. 04499600-6433P | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Terpane Polymer | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Terpane Polymer | Ingestion | Rat | LD50 > 34,000 mg/kg |
| Ethanol | Dermal | Rabbit | LD50 > 15,800 mg/kg |
| Ethanol | Inhalation-Vapor (4 hours) | Rat | LC50 124.7 mg/l |
| Ethanol | Ingestion | Rat | LD50 17,800 mg/kg |
| PENTANE | Dermal | Rabbit | LD50 3,000 mg/kg |
| PENTANE | Inhalation-Vapor (4 hours) | Rat | LC50 > 18 mg/l |
| PENTANE | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Hexane | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Hexane | Inhalation-Vapor (4 hours) | Rat | LC50 170 mg/l |
| Hexane | Ingestion | Rat | LD50 > 28,700 mg/kg |
| Limestone | Dermal | Rat | LD50 > 2,000 mg/kg |
| Limestone | Inhalation-Dust/Mist (4 hours) | Rat | LC50 3 mg/l |
| Limestone | Ingestion | Rat | LD50 6,450 mg/kg |
| toluene | Dermal | Rat | LD50 12,000 mg/kg |
| toluene | Inhalation-Vapor (4 hours) | Rat | LC50 30 mg/l |
| toluene | Ingestion | Rat | LD50 5,550 mg/kg |
| Methylene Chloride | Dermal | Rat | LD50 > 2,000 mg/kg |
| Methylene Chloride | Inhalation-Vapor (4 hours) | Rat | LC50 63.7 mg/l |
| Methylene Chloride | Ingestion | Rat | LD50 1,410 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|------------------------|---------------------------|
| Propane | Rabbit | Minimal irritation |
| Acetone | Mouse | Minimal irritation |
| 2-Methylpentane | Professional judgement | Mild irritant |
| Cyclohexane | Rabbit | Mild irritant |
| Non-volatile components - NJTS Registry No. 04499600-6433P | Professional judgement | Minimal irritation |
| Ethanol | Rabbit | No significant irritation |
| PENTANE | Rabbit | Minimal irritation |
| Hexane | Human and animal | Mild irritant |
| Limestone | Rabbit | No significant irritation |
| toluene | Rabbit | Irritant |
| Methylene Chloride | Rabbit | Irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--------------------|------------------------|---------------------------|
| Propane | Rabbit | Mild irritant |
| Acetone | Rabbit | Severe irritant |
| 2-Methylpentane | Professional judgement | Moderate irritant |
| Cyclohexane | Rabbit | Mild irritant |
| Ethanol | Rabbit | Severe irritant |
| PENTANE | Rabbit | Mild irritant |
| Hexane | Rabbit | Mild irritant |
| Limestone | Rabbit | No significant irritation |
| toluene | Rabbit | Moderate irritant |
| Methylene Chloride | Rabbit | Severe irritant |

Skin Sensitization

| Name | Species | Value |
|---------|------------|----------------|
| Ethanol | Human | Not classified |
| PENTANE | Guinea pig | Not classified |
| Hexane | Human | Not classified |
| toluene | Guinea pig | Not classified |

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

| Name | Route | Value |
|--------------------|----------|--|
| Propane | In Vitro | Not mutagenic |
| Acetone | In vivo | Not mutagenic |
| Acetone | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Cyclohexane | In Vitro | Not mutagenic |
| Cyclohexane | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Ethanol | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Ethanol | In vivo | Some positive data exist, but the data are not sufficient for classification |
| PENTANE | In vivo | Not mutagenic |
| PENTANE | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Hexane | In Vitro | Not mutagenic |
| Hexane | In vivo | Not mutagenic |
| toluene | In Vitro | Not mutagenic |
| toluene | In vivo | Not mutagenic |
| Methylene Chloride | In vivo | Not mutagenic |
| Methylene Chloride | In Vitro | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|---------|---------------|-------------------------|--|
| Acetone | Not Specified | Multiple animal species | Not carcinogenic |
| Ethanol | Ingestion | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Hexane | Dermal | Mouse | Not carcinogenic |
| Hexane | Inhalation | Mouse | Some positive data exist, but the data are not |

| | | | |
|--------------------|------------|-------------------------|--|
| | | | sufficient for classification |
| toluene | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| toluene | Ingestion | Rat | Some positive data exist, but the data are not sufficient for classification |
| toluene | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Methylene Chloride | Inhalation | Multiple animal species | Carcinogenic |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|--------------------|------------|--|-------------------------|-----------------------|--------------------------------|
| Acetone | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,700 mg/kg/day | 13 weeks |
| Acetone | Inhalation | Not classified for development | Rat | NOAEL 5.2 mg/l | during organogenesis |
| Cyclohexane | Inhalation | Not classified for female reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| Cyclohexane | Inhalation | Not classified for male reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| Cyclohexane | Inhalation | Not classified for development | Rat | NOAEL 6.9 mg/l | 2 generation |
| Ethanol | Inhalation | Not classified for development | Rat | NOAEL 38 mg/l | during gestation |
| Ethanol | Ingestion | Not classified for development | Rat | NOAEL 5,200 mg/kg/day | prematuring & during gestation |
| PENTANE | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | during organogenesis |
| PENTANE | Inhalation | Not classified for development | Rat | NOAEL 30 mg/l | during organogenesis |
| Hexane | Ingestion | Not classified for development | Mouse | NOAEL 2,200 mg/kg/day | during organogenesis |
| Hexane | Inhalation | Not classified for development | Rat | NOAEL 0.7 mg/l | during gestation |
| Hexane | Ingestion | Toxic to male reproduction | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| Hexane | Inhalation | Toxic to male reproduction | Rat | LOAEL 3.52 mg/l | 28 days |
| Limestone | Ingestion | Not classified for development | Rat | NOAEL 625 mg/kg/day | prematuring & during gestation |
| toluene | Inhalation | Not classified for female reproduction | Human | NOAEL Not available | occupational exposure |
| toluene | Inhalation | Not classified for male reproduction | Rat | NOAEL 2.3 mg/l | 1 generation |
| toluene | Ingestion | Toxic to development | Rat | LOAEL 520 mg/kg/day | during gestation |
| toluene | Inhalation | Toxic to development | Human | NOAEL Not available | poisoning and/or abuse |
| Methylene Chloride | Inhalation | Not classified for female reproduction | Rat | NOAEL 5.2 mg/l | 2 generation |
| Methylene Chloride | Inhalation | Not classified for male reproduction | Rat | NOAEL 5.2 mg/l | 2 generation |
| Methylene Chloride | Inhalation | Not classified for development | Multiple animal species | NOAEL 4.3 mg/l | during gestation |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-----------------|------------|-----------------------------------|--|-------------------------|---------------------|------------------------|
| Propane | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not available | |
| Propane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Propane | Inhalation | respiratory irritation | Not classified | Human | NOAEL Not available | |
| Acetone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Acetone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 hours |
| Acetone | Inhalation | liver | Not classified | Guinea pig | NOAEL Not available | |
| Acetone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| 2-Methylpentane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| 2-Methylpentane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| 2-Methylpentane | Inhalation | cardiac sensitization | Not classified | Dog | NOAEL Not available | |
| 2-Methylpentane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Cyclohexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Cyclohexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| Cyclohexane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Ethanol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | LOAEL 9.4 mg/l | not available |
| Ethanol | Inhalation | central nervous system depression | Not classified | Human and animal | NOAEL not available | |
| Ethanol | Ingestion | central nervous system depression | Not classified | Multiple animal species | NOAEL not available | |
| Ethanol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 3,000 mg/kg | |
| PENTANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL Not available | not available |
| PENTANE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Not available | NOAEL Not available | not available |
| PENTANE | Inhalation | cardiac sensitization | Not classified | Dog | NOAEL Not available | not available |
| PENTANE | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | not available |

| | | | | | | |
|--------------------|------------|-----------------------------------|--|--------|---------------------|------------------------|
| | | | | nt | | |
| Hexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | not available |
| Hexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL Not available | 8 hours |
| Hexane | Inhalation | respiratory system | Not classified | Rat | NOAEL 24.6 mg/l | 8 hours |
| Limestone | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.812 mg/l | 90 minutes |
| toluene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| toluene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| toluene | Inhalation | immune system | Not classified | Mouse | NOAEL 0.004 mg/l | 3 hours |
| toluene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| Methylene Chloride | Dermal | blood | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL Not available | 4 hours |
| Methylene Chloride | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | occupational exposure |
| Methylene Chloride | Inhalation | blood | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Methylene Chloride | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-----------------|------------|--|----------------|------------|------------------------|-------------------|
| Acetone | Dermal | eyes | Not classified | Guinea pig | NOAEL Not available | 3 weeks |
| Acetone | Inhalation | hematopoietic system | Not classified | Human | NOAEL 3 mg/l | 6 weeks |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 days |
| Acetone | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL 119 mg/l | not available |
| Acetone | Inhalation | heart liver | Not classified | Rat | NOAEL 45 mg/l | 8 weeks |
| Acetone | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 900 mg/kg/day | 13 weeks |
| Acetone | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 200 mg/kg/day | 13 weeks |
| Acetone | Ingestion | liver | Not classified | Mouse | NOAEL 3,896 mg/kg/day | 14 days |
| Acetone | Ingestion | eyes | Not classified | Rat | NOAEL 3,400 mg/kg/day | 13 weeks |
| Acetone | Ingestion | respiratory system | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | muscles | Not classified | Rat | NOAEL 2,500 mg/kg | 13 weeks |
| Acetone | Ingestion | skin bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 11,298 mg/kg/day | 13 weeks |
| 2-Methylpentane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 5.3 mg/l | 14 weeks |

| | | | | | | |
|-----------------|------------|--|--|--------|-----------------------|-----------------------|
| 2-Methylpentane | Ingestion | peripheral nervous system | Not classified | Rat | NOAEL Not available | 8 weeks |
| 2-Methylpentane | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 2,000 mg/kg | 28 days |
| Cyclohexane | Inhalation | liver | Not classified | Rat | NOAEL 24 mg/l | 90 days |
| Cyclohexane | Inhalation | auditory system | Not classified | Rat | NOAEL 1.7 mg/l | 90 days |
| Cyclohexane | Inhalation | kidney and/or bladder | Not classified | Rabbit | NOAEL 2.7 mg/l | 10 weeks |
| Cyclohexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 24 mg/l | 14 weeks |
| Cyclohexane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 8.6 mg/l | 30 weeks |
| Ethanol | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rabbit | LOAEL 124 mg/l | 365 days |
| Ethanol | Inhalation | hematopoietic system immune system | Not classified | Rat | NOAEL 25 mg/l | 14 days |
| Ethanol | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 8,000 mg/kg/day | 4 months |
| Ethanol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 3,000 mg/kg/day | 7 days |
| PENTANE | Inhalation | peripheral nervous system | Not classified | Human | NOAEL Not available | occupational exposure |
| PENTANE | Inhalation | heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system | Not classified | Rat | NOAEL 20 mg/l | 13 weeks |
| PENTANE | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 2,000 mg/kg/day | 28 days |
| Hexane | Inhalation | peripheral nervous system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Hexane | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Mouse | LOAEL 1.76 mg/l | 13 weeks |
| Hexane | Inhalation | liver | Not classified | Rat | NOAEL Not available | 6 months |
| Hexane | Inhalation | kidney and/or bladder | Not classified | Rat | LOAEL 1.76 mg/l | 6 months |
| Hexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 35.2 mg/l | 13 weeks |
| Hexane | Inhalation | auditory system immune system eyes | Not classified | Human | NOAEL Not available | occupational exposure |
| Hexane | Inhalation | heart skin endocrine system | Not classified | Rat | NOAEL 1.76 mg/l | 6 months |
| Hexane | Ingestion | peripheral nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| Hexane | Ingestion | endocrine system hematopoietic system liver immune system kidney and/or | Not classified | Rat | NOAEL Not available | 13 weeks |

| | | | | | | |
|--------------------|------------|---|--|-------------------------|-----------------------|------------------------|
| | | bladder | | | | |
| Limestone | Inhalation | respiratory system | Not classified | Human | NOAEL Not available | occupational exposure |
| toluene | Inhalation | auditory system eyes olfactory system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| toluene | Inhalation | nervous system | May cause damage to organs though prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| toluene | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 2.3 mg/l | 15 months |
| toluene | Inhalation | heart liver kidney and/or bladder | Not classified | Rat | NOAEL 11.3 mg/l | 15 weeks |
| toluene | Inhalation | endocrine system | Not classified | Rat | NOAEL 1.1 mg/l | 4 weeks |
| toluene | Inhalation | immune system | Not classified | Mouse | NOAEL Not available | 20 days |
| toluene | Inhalation | bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 1.1 mg/l | 8 weeks |
| toluene | Inhalation | hematopoietic system vascular system | Not classified | Human | NOAEL Not available | occupational exposure |
| toluene | Inhalation | gastrointestinal tract | Not classified | Multiple animal species | NOAEL 11.3 mg/l | 15 weeks |
| toluene | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 625 mg/kg/day | 13 weeks |
| toluene | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| toluene | Ingestion | liver kidney and/or bladder | Not classified | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks |
| toluene | Ingestion | hematopoietic system | Not classified | Mouse | NOAEL 600 mg/kg/day | 14 days |
| toluene | Ingestion | endocrine system | Not classified | Mouse | NOAEL 105 mg/kg/day | 28 days |
| toluene | Ingestion | immune system | Not classified | Mouse | NOAEL 105 mg/kg/day | 4 weeks |
| Methylene Chloride | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 6.95 mg/l | 2 years |
| Methylene Chloride | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.17 mg/l | 2 years |
| Methylene Chloride | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | LOAEL 35 mg/l | 8 weeks |
| Methylene Chloride | Inhalation | heart | Not classified | Human | NOAEL Not available | |
| Methylene Chloride | Inhalation | immune system | Not classified | Rat | NOAEL 18 mg/l | 28 days |
| Methylene Chloride | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 1,200 mg/kg/day | 3 months |
| Methylene Chloride | Ingestion | blood | Not classified | Rat | NOAEL 249 mg/kg/day | 2 years |
| Methylene Chloride | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,469 mg/kg/day | 3 months |
| Methylene Chloride | Ingestion | eyes | Not classified | Rat | NOAEL 249 mg/kg/day | 104 weeks |

Aspiration Hazard

| Name | Value |
|------|-------|
|------|-------|

| | |
|-----------------|-------------------|
| 2-Methylpentane | Aspiration hazard |
| Cyclohexane | Aspiration hazard |
| PENTANE | Aspiration hazard |
| Hexane | Aspiration hazard |
| toluene | Aspiration hazard |

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

| |
|---|
| For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501. |
|---|

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

| |
|---|
| Physical Hazards |
| Flammable (gases, aerosols, liquids, or solids) |
| Gas under pressure |

| |
|--|
| Health Hazards |
| Reproductive toxicity |
| Serious eye damage or eye irritation |
| Simple Asphyxiant |
| Specific target organ toxicity (single or repeated exposure) |

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

| <u>Ingredient</u> | <u>C.A.S. No</u> | <u>% by Wt</u> |
|-------------------|------------------|----------------|
| | | |

| | | |
|-------------|----------|---------------------|
| Cyclohexane | 110-82-7 | Trade Secret 5 - 15 |
| Hexane | 110-54-3 | Trade Secret < 3 |

This material contains a chemical which requires export notification under TSCA Section 12[b]:

| <u>Ingredient (Category if applicable)</u> | <u>C.A.S. No</u> | <u>Regulation</u> | <u>Status</u> |
|--|------------------|---|---------------|
| Methylene Chloride | 75-09-2 | Toxic Substances Control Act (TSCA) 6 Banned or Restricted Use Chemicals | Applicable |

Additional TSCA Information

| <u>Components</u> | <u>CAS No</u> | <u>Additional Information</u> |
|--------------------|---------------|---|
| Methylene Chloride | 75-09-2 | This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal. |

15.2. State Regulations

Contact 3M for more information.

California Proposition 65

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Listing</u> |
|-------------------|-------------------|-------------------------|
| Toluene | 108-88-3 | Developmental Toxin |
| n-Hexane | 110-54-3 | Male reproductive toxin |

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

| |
|--|
| This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200. |
|--|

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 4 **Instability:** 0 **Special Hazards:** None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: *2 **Flammability:** 4 **Physical Hazard:** 0 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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Supersedes Date: 03/17/21

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Safety Data Sheet

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|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-3472-4 | Version Number: | 40.00 |
| Issue Date: | 05/21/18 | Supersedes Date: | 03/31/17 |

SECTION 1: Identification

1.1. Product identifier

3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol)

Product Identification Numbers

62-4977-2924-4, 62-4977-2928-5, 62-4977-4730-3, 62-4977-4922-6, 62-4977-4923-4, 62-4977-4925-9, 62-4977-4929-1, 62-4977-4930-9, 62-4977-4935-8

1.2. Recommended use and restrictions on use

Recommended use

Adhesive aerosol, General Purpose Aerosol adhesive

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Industrial Adhesives and Tapes Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Aerosol: Category 1.
Gas Under Pressure: Liquefied gas.
Serious Eye Damage/Irritation: Category 2A.
Reproductive Toxicity: Category 2.
Simple Asphyxiant.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Gas cylinder | Exclamation mark | Health Hazard |

Pictograms**Hazard Statements**

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Suspected of damaging fertility or the unborn child.

May displace oxygen and cause rapid suffocation.

Causes damage to organs:
cardiovascular system |

Precautionary Statements**General:**

Keep out of reach of children.

Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

Keep container tightly closed.

Store locked up in a well-ventilated place.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--|---------------|------------------------|
| Acetone | 67-64-1 | 20 - 30 Trade Secret * |
| Non-volatile components (N.J.T.S. Registry No. 04499600-6433P) | Trade Secret* | 20 - 30 Trade Secret * |
| Propane | 74-98-6 | 15 - 25 Trade Secret * |
| Cyclohexane | 110-82-7 | 10 - 20 Trade Secret * |
| Petroleum distillates | 64742-49-0 | 10 - 20 Trade Secret * |
| Hexane | 110-54-3 | < 0.5 Trade Secret * |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Aldehydes
Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|-------------|------------|--------|-------------------------|---------------------|
| Hexane | 110-54-3 | ACGIH | TWA:50 ppm | SKIN |
| Hexane | 110-54-3 | OSHA | TWA:1800 mg/m3(500 ppm) | |
| Cyclohexane | 110-82-7 | ACGIH | TWA:100 ppm | |
| Cyclohexane | 110-82-7 | OSHA | TWA:1050 mg/m3(300 ppm) | |

| | | | | |
|---------|---------|-------|------------------------------|--------------------------------|
| Acetone | 67-64-1 | ACGIH | TWA:250 ppm;STEL:500 ppm | A4: Not class. as human carcin |
| Acetone | 67-64-1 | OSHA | TWA:2400 mg/m3(1000 ppm) | |
| Propane | 74-98-6 | ACGIH | Limit value not established: | simple asphyxiant |
| Propane | 74-98-6 | OSHA | TWA:1800 mg/m3(1000 ppm) | |

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Butyl Rubber
 Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--------------------------------|---------------------------|
| General Physical Form: | Liquid aerosol |
| Specific Physical Form: | Aerosol |
| Odor, Color, Grade: | Clear, sweet, fruity odor |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>No Data Available</i> |
| Melting point | <i>No Data Available</i> |
| Boiling Point | <i>Not Applicable</i> |

| | |
|---|--|
| Flash Point | -42.00 °F [<i>Test Method</i> : Tagliabue Closed Cup] |
| Evaporation rate | 1.9 [<i>Ref Std</i> : ETHER=1] |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | <i>No Data Available</i> |
| Flammable Limits(UEL) | <i>No Data Available</i> |
| Vapor Pressure | [<i>Details</i> : Compressed gas] <i>Not Applicable</i> |
| Vapor Density | 2.97 [<i>Ref Std</i> : AIR=1] |
| Density | 0.726 g/ml |
| Specific Gravity | 0.726 [<i>Ref Std</i> : WATER=1] |
| Solubility in Water | Nil |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>No Data Available</i> |
| Decomposition temperature | <i>Not Applicable</i> |
| Viscosity | <i>Not Applicable</i> |
| Hazardous Air Pollutants | <=0.4 % weight [<i>Test Method</i> : Calculated] |
| VOC Less H ₂ O & Exempt Solvents | <=51 % [<i>Test Method</i> : calculated per CARB title 2] |
| Solids Content | >=22.4 % |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| Name | Route | Species | Value |
|-----------------|----------------------------|---------|--|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Inhalation-Vapor(4 hr) | | No data available; calculated ATE >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Propane | Inhalation-Gas (4 hours) | Rat | LC50 > 200,000 ppm |
| Acetone | Dermal | Rabbit | LD50 > 15,688 mg/kg |
| Acetone | Inhalation-Vapor (4 hours) | Rat | LC50 76 mg/l |

| | | | |
|--|----------------------------|--------|--|
| Acetone | Ingestion | Rat | LD50 5,800 mg/kg |
| Cyclohexane | Dermal | Rat | LD50 > 2,000 mg/kg |
| Cyclohexane | Inhalation-Vapor (4 hours) | Rat | LC50 > 32.9 mg/l |
| Cyclohexane | Ingestion | Rat | LD50 6,200 mg/kg |
| Petroleum distillates | Dermal | Rabbit | LD50 > 3,160 mg/kg |
| Petroleum distillates | Inhalation-Vapor (4 hours) | Rat | LC50 > 14.7 mg/l |
| Petroleum distillates | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Non-volatile components (N.J.T.S. Registry No. 04499600-6433P) | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Non-volatile components (N.J.T.S. Registry No. 04499600-6433P) | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Hexane | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Hexane | Inhalation-Vapor (4 hours) | Rat | LC50 170 mg/l |
| Hexane | Ingestion | Rat | LD50 > 28,700 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|------------------------|--------------------|
| Propane | Rabbit | Minimal irritation |
| Acetone | Mouse | Minimal irritation |
| Cyclohexane | Rabbit | Mild irritant |
| Petroleum distillates | Rabbit | Irritant |
| Non-volatile components (N.J.T.S. Registry No. 04499600-6433P) | Professional judgement | Minimal irritation |
| Hexane | Human and animal | Mild irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-----------------------|---------|-----------------|
| Propane | Rabbit | Mild irritant |
| Acetone | Rabbit | Severe irritant |
| Cyclohexane | Rabbit | Mild irritant |
| Petroleum distillates | Rabbit | Mild irritant |
| Hexane | Rabbit | Mild irritant |

Skin Sensitization

| Name | Species | Value |
|-----------------------|------------|----------------|
| Petroleum distillates | Guinea pig | Not classified |
| Hexane | Human | Not classified |

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

| Name | Route | Value |
|-------------|----------|--|
| Propane | In Vitro | Not mutagenic |
| Acetone | In vivo | Not mutagenic |
| Acetone | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Cyclohexane | In Vitro | Not mutagenic |

| | | |
|-----------------------|----------|--|
| Cyclohexane | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Petroleum distillates | In Vitro | Not mutagenic |
| Hexane | In Vitro | Not mutagenic |
| Hexane | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|-----------------------|---------------|-------------------------|--|
| Acetone | Not Specified | Multiple animal species | Not carcinogenic |
| Petroleum distillates | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Hexane | Dermal | Mouse | Not carcinogenic |
| Hexane | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|-------------|------------|--|---------|-----------------------|----------------------|
| Acetone | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,700 mg/kg/day | 13 weeks |
| Acetone | Inhalation | Not classified for development | Rat | NOAEL 5.2 mg/l | during organogenesis |
| Cyclohexane | Inhalation | Not classified for female reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| Cyclohexane | Inhalation | Not classified for male reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| Cyclohexane | Inhalation | Not classified for development | Rat | NOAEL 6.9 mg/l | 2 generation |
| Hexane | Ingestion | Not classified for development | Mouse | NOAEL 2,200 mg/kg/day | during organogenesis |
| Hexane | Inhalation | Not classified for development | Rat | NOAEL 0.7 mg/l | during gestation |
| Hexane | Ingestion | Toxic to male reproduction | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| Hexane | Inhalation | Toxic to male reproduction | Rat | LOAEL 3.52 mg/l | 28 days |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---------|------------|-----------------------------------|--|------------|---------------------|-------------------|
| Propane | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not available | |
| Propane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Propane | Inhalation | respiratory irritation | Not classified | Human | NOAEL Not available | |
| Acetone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Acetone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 hours |
| Acetone | Inhalation | liver | Not classified | Guinea pig | NOAEL Not available | |
| Acetone | Ingestion | central nervous | May cause drowsiness or | Human | NOAEL Not | poisoning |

| | | | | | | |
|-----------------------|------------|-----------------------------------|--|------------------------|---------------------|---------------|
| | | system depression | dizziness | | available | and/or abuse |
| Cyclohexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Cyclohexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| Cyclohexane | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Petroleum distillates | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Petroleum distillates | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| Petroleum distillates | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Hexane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | not available |
| Hexane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL Not available | 8 hours |
| Hexane | Inhalation | respiratory system | Not classified | Rat | NOAEL 24.6 mg/l | 8 hours |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-------------|------------|--|----------------|------------|------------------------|-------------------|
| Acetone | Dermal | eyes | Not classified | Guinea pig | NOAEL Not available | 3 weeks |
| Acetone | Inhalation | hematopoietic system | Not classified | Human | NOAEL 3 mg/l | 6 weeks |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1.19 mg/l | 6 days |
| Acetone | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL 119 mg/l | not available |
| Acetone | Inhalation | heart liver | Not classified | Rat | NOAEL 45 mg/l | 8 weeks |
| Acetone | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 900 mg/kg/day | 13 weeks |
| Acetone | Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 200 mg/kg/day | 13 weeks |
| Acetone | Ingestion | liver | Not classified | Mouse | NOAEL 3,896 mg/kg/day | 14 days |
| Acetone | Ingestion | eyes | Not classified | Rat | NOAEL 3,400 mg/kg/day | 13 weeks |
| Acetone | Ingestion | respiratory system | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | muscles | Not classified | Rat | NOAEL 2,500 mg/kg | 13 weeks |
| Acetone | Ingestion | skin bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 11,298 mg/kg/day | 13 weeks |
| Cyclohexane | Inhalation | liver | Not classified | Rat | NOAEL 24 mg/l | 90 days |
| Cyclohexane | Inhalation | auditory system | Not classified | Rat | NOAEL 1.7 mg/l | 90 days |

| | | | | | | |
|-------------|------------|---|--|--------|-----------------------|-----------------------|
| Cyclohexane | Inhalation | kidney and/or bladder | Not classified | Rabbit | NOAEL 2.7 mg/l | 10 weeks |
| Cyclohexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 24 mg/l | 14 weeks |
| Cyclohexane | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 8.6 mg/l | 30 weeks |
| Hexane | Inhalation | peripheral nervous system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Hexane | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Mouse | LOAEL 1.76 mg/l | 13 weeks |
| Hexane | Inhalation | liver | Not classified | Rat | NOAEL Not available | 6 months |
| Hexane | Inhalation | kidney and/or bladder | Not classified | Rat | LOAEL 1.76 mg/l | 6 months |
| Hexane | Inhalation | hematopoietic system | Not classified | Mouse | NOAEL 35.2 mg/l | 13 weeks |
| Hexane | Inhalation | auditory system immune system eyes | Not classified | Human | NOAEL Not available | occupational exposure |
| Hexane | Inhalation | heart skin endocrine system | Not classified | Rat | NOAEL 1.76 mg/l | 6 months |
| Hexane | Ingestion | peripheral nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| Hexane | Ingestion | endocrine system hematopoietic system liver immune system kidney and/or bladder | Not classified | Rat | NOAEL Not available | 13 weeks |

Aspiration Hazard

| Name | Value |
|-----------------------|-------------------|
| Cyclohexane | Aspiration hazard |
| Petroleum distillates | Aspiration hazard |
| Hexane | Aspiration hazard |

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

Gas under pressure

Health Hazards

Reproductive toxicity

Serious eye damage or eye irritation

Simple Asphyxiant

Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient
Cyclohexane

C.A.S. No
110-82-7

% by Wt
Trade Secret 10 - 20

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 4 Instability: 0 Special Hazards: None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification**Health: *2 Flammability: 4 Physical Hazard: 0 Personal Protection: X** - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-3472-4 | Version Number: | 40.00 |
| Issue Date: | 05/21/18 | Supersedes Date: | 03/31/17 |

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SAFETY DATA SHEET

Revision Date 24-Feb-2020

Version 7

1. IDENTIFICATION

Product identifier

Product Name 771 NICKEL ANTI-SEIZE LUBRICANT 8OZ BT

Other means of identification

Product Code 77124

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|-------------|
| Skin sensitization | Category 1 |
| Carcinogenicity | Category 1B |
| Specific target organ toxicity (repeated exposure) | Category 1 |

Label elements

Emergency Overview

Signal word

Danger

May cause an allergic skin reaction
May cause cancer
Causes damage to organs through prolonged or repeated exposure



Appearance Silver

Physical state Paste Liquid

Odor Petroleum

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see .? on this label)

IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Toxic to aquatic life with long lasting effects.

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---|------------|----------|
| DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC | 64741-96-4 | 50-75 |
| GRAPHITE | 7782-42-5 | 10 - 30 |
| NICKEL | 7440-02-0 | 5 - 10 |
| ALUMINIUM POWDER | 7429-90-5 | 1 - 5 |

4. FIRST AID MEASURES

Description of first aid measures

General advice Get medical advice/attention if you feel unwell.

| | |
|---|--|
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Skin contact | IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. |
| Inhalation | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. |
| Ingestion | IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician. |
| Self-protection of the first aider | Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Use dry chemical, Foam

Unsuitable extinguishing media

Water

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions See section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate

containers for disposal. Clean contaminated surface thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Store locked up.

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------------------|---|--|---|
| GRAPHITE 7782-42-5 | TWA: 2 mg/m ³ respirable particulate matter all forms except graphite fibers | TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural | IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ natural respirable dust |
| NICKEL 7440-02-0 | TWA: 1.5 mg/m ³ inhalable particulate matter | TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ | IDLH: 10 mg/m ³ IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ TWA: 0.015 mg/m ³ except Nickel carbonyl Ni |
| ALUMINIUM POWDER 7429-90-5 | TWA: 1 mg/m ³ respirable particulate matter | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al |

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Skin and body protection** Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
- Respiratory protection** Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as

appropriate.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Paste Liquid
Appearance Silver
Odor Petroleum
Odor threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--|--------------------------|-------------------------|
| pH | No information available | |
| Melting point / freezing point | No information available | |
| Boiling point / boiling range | No information available | |
| Flash point | > 204 °C / > 399 °F | |
| Evaporation rate | < 1 | Butyl acetate = 1 |
| Flammability (solid, gas) | No information available | |
| Flammability Limit in Air | | |
| Upper flammability limit: | No information available | |
| Lower flammability limit: | No information available | |
| Vapor pressure | No information available | |
| Vapor density | No information available | |
| Relative density | 1.12 | |
| Water solubility | Negligible | |
| Solubility(ies) | No information available | |
| Partition coefficient | No information available | |
| Autoignition temperature | No information available | |
| Decomposition temperature | No information available | |
| Kinematic viscosity | No information available | |
| Dynamic viscosity | No information available | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| Other Information | | |
| Softening point | No information available | |
| Molecular weight | No information available | |
| Density | No information available | |
| Bulk density | No information available | |
| SADT (self-accelerating decomposition temperature) | No information available | |

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability
Stable under normal conditions

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Excessive heat.

Incompatible materials

Strong oxidizing agents

Hazardous Decomposition Products

Carbon oxides
Metal oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation May cause irritation of respiratory tract.

Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.

Ingestion Ingestion may cause irritation to mucous membranes.

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|----------------------|-------------------------|--------------------------------------|
| DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC 64741-96-4 | > 5000 mg/kg (Rat) | > 5000 mg/kg (Rabbit) | - |
| GRAPHITE 7782-42-5 | - | - | > 2000 mg/m ³ (Rat) 4 h |
| NICKEL 7440-02-0 | > 9000 mg/kg (Rat) | - | > 10.2 mg/L (Rat) 1 h |

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|--|-------|----------|------------------------|------|
| DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC 64741-96-4 | A2 | Group 1 | Known | X |
| NICKEL 7440-02-0 | - | Group 2B | Reasonably Anticipated | X |

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
 IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
 NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Target Organ Effects Central Vascular System (CVS), Nasal Cavities, Respiratory system, Skin, Eyes, Lungs.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 5515 mg/kg
ATEmix (dermal) 5960 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

17 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

- Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated packaging** Do not reuse container.
- US EPA Waste Number** Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|-------------------------------|-----------------------------------|
| NICKEL 7440-02-0 | Toxic powder Ignitable powder |
| ALUMINIUM POWDER 7429-90-5 | Ignitable powder |

14. TRANSPORT INFORMATION

DOT

Proper shipping name Not regulated

IATA

Proper shipping name Not regulated

IMDG

Proper shipping name Not regulated

15. REGULATORY INFORMATION

International Inventories

- TSCA** Complies
- DSL/NDSL** Complies
- EINECS/ELINCS** Complies
- ENCS** Not determined
- IECSC** Complies

KECL Complies
PICCS Complies
AICS Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|------------------------------|-------------------------------|
| NICKEL - 7440-02-0 | 0.1 |
| ALUMINIUM POWDER - 7429-90-5 | 1.0 |

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| NICKEL 7440-02-0 | - | X | X | - |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------|--------------------------|----------------|---|
| NICKEL 7440-02-0 | 100 lb | - | RQ 100 lb final RQ RQ 45.4 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 |
|---------------------|---------------------------|
| NICKEL 7440-02-0 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| GRAPHITE 7782-42-5 | X | X | X |
| NICKEL 7440-02-0 | X | X | X |
| ALUMINIUM POWDER 7429-90-5 | X | X | X |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

| | | | | |
|-------------|------------------|----------------|--------------------|-----------------------|
| <u>NFPA</u> | Health hazards 2 | Flammability 1 | Instability 0 | - |
| <u>HMIS</u> | Health hazards 2 | Flammability 1 | Physical hazards 0 | Personal protection B |

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Revision Date 24-Feb-2020

Disclaimer

Illinois Tool Works Inc. believes the information contained in this data sheet is accurate as of the date compiled. However, Illinois Tool Works Inc. makes no warranty, express or implied, as to the accuracy, reliability or completeness of the information. User is responsible for evaluating whether such information or this product is fit for a particular purpose and suitable for a particular use or application. The information in this data sheet may not be valid if this product is used in combination with other products or in processes for which it was not designed. Illinois Tool Works Inc. disclaims any liability for consequential or incidental damages of any kind, including lost profits, arising from the sale or use of this product. Ensure you have the most current version of this data sheet by contacting us or reviewing our web site.

End of Safety Data Sheet



SAFETY DATA SHEET

Revision Date 13-Jun-2019

Version 6

1. IDENTIFICATION

Product identifier

Product Name 771 NICKEL ANTI-SEIZE LUBRICANT 8OZ BT

Other means of identification

Product Code 77124

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--------------------|------------|
| Skin sensitization | Category 1 |
| Carcinogenicity | Category 2 |

Label elements

Emergency Overview

Signal word

Warning

May cause an allergic skin reaction
Suspected of causing cancer



Appearance Silver

Physical state Paste

Odor Petroleum

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)

IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Note L: The classification as a carcinogen 1 does not apply. The substance contains less than 3 % DMSO extract as measured by IP 346. This note applies only to certain complex oil derived substances in Annex I

Unknown acute toxicity 34.5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---|------------|----------|
| DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC | 64741-96-4 | 50-75 |
| NICKEL | 7440-02-0 | 5 - 10 |
| ALUMINIUM POWDER | 7429-90-5 | 1 - 5 |

4. FIRST AID MEASURES

Description of first aid measures

General advice Get medical advice/attention if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact

IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion

IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms

May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media

Water

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Store locked up.

Incompatible materials

Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------------------|---|---|---|
| NICKEL 7440-02-0 | TWA: 1.5 mg/m ³ inhalable particulate matter | TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ | IDLH: 10 mg/m ³ IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ TWA: 0.015 mg/m ³ except Nickel carbonyl Ni |
| ALUMINIUM POWDER 7429-90-5 | TWA: 1 mg/m ³ respirable particulate matter | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al |

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls**Engineering Controls**

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection

Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

| | |
|-----------------------|--------------------------|
| Physical state | Paste |
| Appearance | Silver |
| Odor | Petroleum |
| Odor threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--|--------------------------|-------------------------|
| pH | No information available | |
| Melting point / freezing point | No information available | |
| Boiling point / boiling range | No information available | |
| Flash point | > 204 °C / > 400 °F | |
| Evaporation rate | < 1 | Butyl acetate = 1 |
| Flammability (solid, gas) | No information available | |
| Flammability Limit in Air | | |
| Upper flammability limit: | No information available | |
| Lower flammability limit: | No information available | |
| Vapor pressure | No information available | |
| Vapor density | No information available | |
| Relative density | 1.12 | |
| Water solubility | Negligible | |
| Solubility(ies) | No information available | |
| Partition coefficient | No information available | |
| Autoignition temperature | No information available | |
| Decomposition temperature | No information available | |
| Kinematic viscosity | No information available | |
| Dynamic viscosity | No information available | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| <u>Other Information</u> | | |
| Softening point | No information available | |
| Molecular weight | No information available | |
| VOC Content (%) | 0 | |
| Density | No information available | |
| Bulk density | No information available | |
| SADT (self-accelerating decomposition temperature) | No information available | |

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Excessive heat.

Incompatible materials

Strong oxidizing agents

Hazardous Decomposition Products

Carbon oxides

Metal oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|---------------------|---|
| Inhalation | May cause irritation of respiratory tract. |
| Eye contact | Contact with eyes may cause irritation. May cause redness and tearing of the eyes. |
| Skin contact | May cause skin irritation and/or dermatitis. May cause sensitization by skin contact. |
| Ingestion | Ingestion may cause irritation to mucous membranes. |

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|----------------------|-------------------------|-------------------------|
| DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC 64741-96-4 | > 5000 mg/kg (Rat) | > 5000 mg/kg (Rabbit) | - |
| NICKEL 7440-02-0 | > 9000 mg/kg (Rat) | - | > 10.2 mg/L (Rat) 1 h |

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|--|-------|----------|------------------------|------|
| DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC 64741-96-4 | A2 | Group 1 | Known | X |
| NICKEL 7440-02-0 | - | Group 2B | Reasonably Anticipated | X |

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - *Suspected Human Carcinogen*

IARC (International Agency for Research on Cancer)

Group 1 - *Carcinogenic to Humans*

Group 2B - *Possibly Carcinogenic to Humans*

NTP (National Toxicology Program)

Known - *Known Carcinogen*

Reasonably Anticipated - *Reasonably Anticipated to be a Human Carcinogen*

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - *Present*

Target Organ Effects Central Vascular System (CVS), Nasal Cavities, Respiratory system, Skin, Eyes.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 73761 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

37 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|-------------------------------|-----------------------------------|
| NICKEL 7440-02-0 | Toxic powder Ignitable powder |
| ALUMINIUM POWDER 7429-90-5 | Ignitable powder |

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated

IATA
Proper shipping name: Not regulated

IMDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Not determined
IECSC Complies
KECL Complies
PICCS Complies
AICS Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|------------------------------|-------------------------------|
| NICKEL - 7440-02-0 | 0.1 |
| ALUMINIUM POWDER - 7429-90-5 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute health hazard | Yes |
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| NICKEL 7440-02-0 | - | X | X | - |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------|--------------------------|----------------|---|
| NICKEL 7440-02-0 | 100 lb | - | RQ 100 lb final RQ RQ 45.4 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 |
|--------------------|---------------------------|
| NICKEL - 7440-02-0 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| GRAPHITE 7782-42-5 | X | X | X |
| NICKEL 7440-02-0 | X | X | X |
| ALUMINIUM POWDER 7429-90-5 | X | X | X |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

| | | | | |
|-------------|------------------|----------------|--------------------|-----------------------|
| NFPA | Health hazards 2 | Flammability 1 | Instability 0 | - |
| HMIS | Health hazards 2 | Flammability 1 | Physical hazards 0 | Personal protection B |

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 13-Jun-2019

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

ABC DRY CHEMICAL

SECTION I. Chemical Product and Company Identification

Product Name: ABC Dry Chemical Fire Extinguishant
(Fire Extinguishing Agent, Non-pressurized and Pressurized)
Synonym: Multi-Purpose Dry Chemical
Manufacturer: Buckeye Fire Equipment Company
PO Box 428
Kings Mountain, NC 28086
Telephone: 704.739.7415
Web Address: www.buckeyefire.com
Email Address: bfec@buckeyef.com
Recommended Use: Fire suppression, not for human or animal drug use.
Emergency: CHEMTREC 1.800.424.9300
Revision Date: 08/05//2019

SECTION II. Hazard Identification

Note: This SDS covers both pressurized and non-pressurized containers of the product.

GHS – Classification (Pressurized):

Hazard Classification: Gas Under Pressure-Compressed Gas

GHS Label Elements:



Hazard Symbols:

Signal Word: WARNING

Hazard Statements: Contents Under Pressure: may explode if heated

Precautionary Statements: P251 Pressurized container; do not pierce or burn, even after use.

GHS – Classification (Non-pressurized):

Eye Irritation: Category 2B

Skin Irritation: Category 5

Acute Toxicity-Inhalation: Category 5

GHS Label Elements:



Hazard Symbols:

Signal Word: WARNING

Hazard Statements:

H313 May be harmful in contact with skin.

H320 Causes eye irritation

H333 May be harmful if inhaled.

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P234 Keep in original container.

P251 Pressurized container; do not pierce or burn, even after use

P261 Avoid breathing dust

P264 Wash hands and face thoroughly after handling

P270 Do not eat, drink, or smoke when using this product

P281 Use personal protective equipment as required

SAFETY DATA SHEET ABC DRY CHEMICAL

| | |
|--------------|---|
| P285 | In case of inadequate ventilation, wear respiratory protection |
| P301+322+331 | If swallowed, drink 2-3 glasses of water and do not induce vomiting |
| 302+352 | If on skin, wash with soap and water |
| 304+313+341 | If inhaled, and if distress occurs, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice/attention. |
| 305+351+338 | If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue to rinse. |
| 337+313 | If eye irritation persists, get medical advice/attention. |
| P401+402+403 | Store in original container or extinguisher in a dry, well ventilated place. |

SECTION III. Composition/Information on Ingredients

This product is a mixture.

| Chemical Name | Weight %* | CAS # |
|------------------------------------|-----------|-------------------------|
| Monoammonium phosphate | 85 | 7722-76-1 |
| Barium Sulfate | 8 | 7727-43-7 |
| Mica | < 3 | 12001-26-2 |
| Amorphous Silica (non-crystalline) | < 3 | 112926-00-8 (7631-86-9) |
| Stannous octoate | < .3 | 301-10-0 |
| Silicone | < .1 | 63148-57-2 |
| Pigment | < .1 | 6358-31-2 |

Note: Pressurized product uses nitrogen as the expellant 7727-37-9

* % is rounded to the nearest appropriate number. Values are not to be considered product specifications

SECTION IV. First Aid Measures

Eye Exposure- Flush eyes with water until pain-free. If irritation develops or persists, seek medical attention.

Skin Exposure- Wash with plenty of soap and water. If irritation develops or persists, seek medical attention.

Inhalation- Move victim to fresh air. If irritation develops or persists, seek medical attention.

Ingestion- If victim is conscious and alert, give 2-3 glasses of water to drink. Do not induce vomiting. If vomiting occurs and the victim is conscious, give additional water to further dilute the chemical. Prevent aspiration of swallowed product by laying victim on side with head lower than their waist. Seek medical attention. Do not leave victim unattended.

Medical Conditions Possibly Aggravated by Exposure- Inhalation of the product may aggravate existing chronic respiratory conditions such as asthma, emphysema, or bronchitis. Contact with the skin may aggravate an existing skin disease. Chronic overexposure may cause pneumoconiosis ("Dusty Lung" disease).

SECTION V. Firefighting Measures

Extinguishing Media: N/A. This product is an extinguishing agent. It is nonflammable and noncombustible.

Special Firefighting Procedures: N/A

Unusual Fire and Explosion Hazards: This product may decompose in fire and release oxides of carbon, potassium, and nitrogen (Refer to Section X).

Sensitivity to Mechanical Impact or Static Discharge: None

SECTION VI. Accidental Release Measures

In case of accidental release, use the appropriate respiratory protection. Clean up the product using a vacuum or wet sweep and shovel to minimize the generation of dust. Bag or drum the product for disposal. If the product is used and/or contaminated, use personal protective equipment and containment means that are appropriate for the composition of the mixture. Product should be prevented from entering waterways.

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ABC DRY CHEMICAL

SECTION VII. Handling and Storage

Avoid eye, respiratory, and skin exposure. Use the appropriate personal protective equipment when handling. Wash thoroughly after handling (Refer to Section VIII). Product should be stored in its original container or extinguisher. When the product is contained under pressure (e.g., an extinguisher), inspect the container for rust or damage that may compromise the container integrity. Do not store the product in high humidity and do not mix with other extinguishing agents, particularly potassium bicarbonate-based agents.

SECTION VIII. Exposure Controls and Personal Protection

Exposure Guidelines:

| | <u>OSHA PEL</u> | <u>ACGIH TLV</u> |
|------------------------|---|---|
| Monoammonium phosphate | Particulates Not Otherwise Classified Total Dust- 15 mg/m ³ Respirable Fraction- 5 mg/m ³ | Particulates Not Otherwise Classified Total Dust- 10 mg/m ³ Respirable Fraction- 3 mg/m ³ |
| Barium sulfate | Particulates Not Otherwise Classified Total Dust- 15 mg/m ³ Respirable Fraction- 5 mg/m ³ | Particulates Not Otherwise Classified Total Dust- 10 mg/m ³ Respirable Fraction- 3 mg/m ³ |
| Mica | 6 mg/m ³ | 3 mg/m ³ |
| Amorphous Silica | 6 mg/m ³ | 10 mg/m ³ |
| Stannous octoate | .1 mg/m ³ | .1 mg/m ³ |
| Silicone | Not Regulated | Not Regulated |
| Pigment | Not Regulated | Not Regulated |

During the use of this product on fires, exhaust gases and products of incomplete combustion are the main respiratory hazards. In the manufacture of this product, employers and employees must use their collective judgment in determining the on-the-job settings where the use of a dust mask or respirator is prudent. The need for respiratory protection is not likely for short-term use in well-ventilated areas.

Respiratory Protection: Use an N-95 dust mask for limited exposures and use air-purifying respirators with high efficiency particulate air filters (HEPA filters) for prolonged exposures.

Eye Protection: Wear chemical goggles or full-face air-purifying respirator.

Skin Protection: Use nitrile, latex, or similar gloves and coveralls. Good personal hygiene practices are essential. After handling the product, avoid food, tobacco products, or other means of transferring the product from hand to mouth until after thoroughly washing.

SECTION IX. Physical and Chemical Properties

Chemical Agent

Appearance and Odor: Light yellow fine powder that is odorless.

Apparent Density: 0.82

Solubility: The product is coated with water repellent silicone. Not immediately soluble in water.

pH: Approximately 4 -5

Flash Point: N/A

Flammability: N/A

Vapor Pressure: N/A

Boiling Point: N/A

Explosive or Oxidizing Properties: None

Expellant- Nitrogen

Appearance and Odor: Colorless and odorless.

Specific Gravity: 0.075 lb./ft³@ 70°F as vapor

Solubility: N/A

pH: N/A

Flash Point: Nonflammable

Flammability: Nonflammable

Vapor Pressure: N/A

Boiling Point: -321°F

Explosive or Oxidizing Properties: None

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SECTION X. Stability and Reactivity

Reactivity: Pressurized containers may rupture or explode if exposed to high heat

Stability: Stable

Incompatibles: Magnesium, strong oxidizers such as calcium hypochlorite (pool chlorine), strong alkalis, and isocyanic acids.

Decomposition Products: This product may decompose in fire and release carbon monoxide, carbon dioxide, and sulfur dioxide. Oxides of phosphorous and ammonia have been reported.

Hazardous Polymerization: Will not occur

Hazardous Reactions: None

SECTION XI. Toxicological Information

Acute Toxicity: Monoammonium phosphate LD50 (rat): > 1000mg/kg body weight.

Target organs in humans: respiratory system, eyes, and skin. This product is an irritant to epithelial tissue and may aggravate dermatitis. No indication that the product causes sensitization.

Chronic Toxicity: Pneumoconiosis, or “Dusty Lung” disease, may result from chronic exposure to any dust.

Reproductive Toxicity: This product is not known to have any reproductive effects.

Nitrogen: Simple asphyxiant. Exposure at high concentrations can cause suffocation by reducing the available oxygen.

SECTION XII. Ecological Information

Ecotoxicity: Negative effects are unknown. Provides nutrient nitrogen and phosphorous to plant life.

Degradability: Degrades rapidly in wet or humid environment.

Bioaccumulation: Unknown extent.

Mobility in Soil: Water-soluble. May leech into groundwater.

SECTION XIII. Disposal Consideration

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal regulations. Be aware that product used on a fire may be altered or contaminated and thereby require different disposal considerations.

SECTION XIV. Transportation Information

This product is not defined as a hazardous material under U.S. Department of Transportation 49 CFR 172, or by Transport Canada “Transportation of Dangerous Goods” regulations.

Please Note: Although this material is not considered hazardous, when contained in a stored pressure fire extinguisher pressurized with a nonflammable gas, the extinguisher itself is considered a hazardous material by the U.S. Department of Transportation (USDOT) and Transport Canada (TC). The proper shipping name shall be Fire Extinguisher and the UN Identification Number is UN 1044. The USDOT hazard class is Limited Quantity when pressurized to less than 241 psig and when shipped via highway or rail. For shipment by Air or Water consult the current IATA or IMDG Regulations respectively.

SAFETY DATA SHEET

ABC DRY CHEMICAL

SECTION XV. Regulatory Information

International Inventory Status: All ingredients are on the following inventories

| <u>Country</u> | <u>Agency</u> | <u>Country</u> | <u>Agency</u> |
|----------------|---------------|----------------|---------------|
| U.S.A. | TSCA | Australia | AICS |
| Canada | DSL | Japan | MITI |
| Europe | EINECS/ELINCS | South Korea | KECL |

European Risk and Safety Phrases:

| | | |
|--------------------|----------------|---|
| EU Classification- | | Harmful |
| R Phrases- | 22 36/37/38 | Harmful if swallowed Irritating to eyes, respiratory system, and skin. |
| S Phrases- | 26 36 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice Wear suitable protective clothing |

U.S. Federal Regulatory Information:

Non-pressurized; None of the chemicals in this product are under SARA reporting requirements or have SARA Threshold Planning Quantities or CERCLA Reportable Quantities or are regulated under TSCA 8(d).
Pressurized: SARA Title III Section 311/312 Categorization is Pressure Hazard

State Regulatory Information:

Chemicals in this product are covered under the specific State regulations noted:

| | | | |
|---------------|---|---------------|--------------------------------------|
| Alaska | Designated Toxic and Hazardous Substances- None | | |
| California | Permissible Exposure Limits for Chemical Contaminants- None | | |
| Florida | Substance list- Mica dust | Pennsylvania | Hazardous Substance List- None |
| Illinois | Toxic Substance List- No | Rhode Island | Hazardous Substance List- Mica dust |
| Kansas | Section 302/303 List- None | Texas | Hazardous Substance List- No |
| Massachusetts | Substance list- Mica dust | West Virginia | Hazardous Substance List- None |
| Minnesota | List of Hazardous Substances- None | Wisconsin | Toxic and Hazardous Substances- None |
| Missouri | Employer Information/Toxic Substance List- None | | |
| New Jersey | Right to Know Hazardous Substance List- None | | |
| North Dakota | List of Hazardous Chemicals, Reportable Quantities- None | | |

California Proposition 65- No component is listed on the California Proposition 65 List

SECTION XVI. Other Information

This Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

HMIS RATINGS:

Health 1
Flammability 0
Reactivity 0
Personal Protective Equipment: use N-95 dust mask (See Section 8)

WHMIS (Canadian Workplace Hazardous Materials Identification)

D2B- May irritate eyes, mucous membranes, and/or skin

Revised on 7/24/19: Page 1, Section II GHS-classification (Non-pressurized) changed (Class) to (Category) Skin Irritation: Class 3 to Category 5, and Inhalations from Class 5 to Category 5. Revised 8/5/19 (Section II) to add "Acute Toxicity" to Inhalation: Category 5

The information contained herein is given in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made.

Common Name: ABC DRY CHEMICAL FIRE EXTINGUISHANT

Manufacturer: BUCKEYE FIRE EQUIPMENT

SDS Revision Date: 4/1/2015

SDS Format: GHS-US

Grainger Item Number(s): 2LBP1, 31CA37, 35WT05, 35WT06, 35WT07, 35WT08, 35WT09, 35WT10, 35WT11, 35WT41, 35WT42, 35WT43, 35WT44, 3GRW5, 3GRW6, 3GRW7, 3GRW8, 3GRY3, 3GRY4, 3GRY5, 3GRY6, 3GRY7, 3GRY8, 3GRZ4, 44YZ28, 44YZ29, 44YZ30, 44YZ31, 44YZ33, 44YZ35

Manufacturer Model Number(s):

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SAFETY DATA SHEET

ABC DRY CHEMICAL

SECTION I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



PRODUCT NAME: ABC DRY CHEMICAL FIRE EXTINGUISHANT

SYNONYM: MULTI-PURPOSE DRY CHEMICAL

MANUFACTURER:
BUCKEYE FIRE EQUIPMENT COMPANY
110 KINGS ROAD
KINGS MOUNTAIN, NC 28086

TELEPHONE: 704.739.7415

WEB ADDRESS: WWW.BUCKEYEFIRE.COM

EMAIL ADDRESS: BFEC@BUCKEYEF.COM

RECOMMENDED USE: FIRE SUPPRESSION, NOT FOR HUMAN OR ANIMAL DRUG USE.

EMERGENCY:

CHEMTREC: 1.800.424.9300

REVISION DATE: 04/2015

SECTION II. HAZARD IDENTIFICATION



GHS - CLASSIFICATION:

EYE IRRITATION: CLASS 2B

SKIN IRRITATION: CLASS 3

INHALATION: CLASS 5

GHS LABEL ELEMENTS:

HAZARD SYMBOLS: EXCLAMATION MARK

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

H313: MAY BE HARMFUL IN CONTACT WITH SKIN.

H320: CAUSES EYE IRRITATION

H333: MAY BE HARMFUL IF INHALED.

PRECAUTIONARY STATEMENTS:

P101:

IF MEDICAL ADVICE IS NEEDED, HAVE PRODUCT CONTAINER OR LABEL AT HAND.

P102: KEEP OUT OF REACH OF CHILDREN.

P234: KEEP IN ORIGINAL CONTAINER.

P251: PRESSURIZED CONTAINER; DO NOT PIERCE OR BURN, EVEN AFTER USE

P261: AVOID BREATHING DUST

P264: WASH HANDS AND FACE THOROUGHLY AFTER HANDLING

P270: DO NOT EAT, DRINK, OR SMOKE WHEN USING THIS PRODUCT

P281: USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED

P285: IN CASE OF INADEQUATE VENTILATION, WEAR RESPIRATORY PROTECTION

P301+322+331:

IF SWALLOWED, DRINK 2-3 GLASSES OF WATER AND DO NOT INDUCE VOMITING

302+352: IF ON SKIN, WASH WITH SOAP AND WATER

304+313+341:

IF INHALED, AND IF DISTRESS OCCURS, REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. SEEK MEDICAL ADVICE/ATTENTION.

305+351+338:

IF IN EYES, RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES IF PRESENT AND EASY TO DO, AND CONTINUE TO RINSE.

337+313: IF EYE IRRITATION PERSISTS, GET MEDICAL ADVICE/ATTENTION.

P401+402+403:

STORE IN ORIGINAL CONTAINER OR EXTINGUISHER IN A DRY, WELL VENTILATED PLACE.

SECTION III. COMPOSITION/INFORMATION ON INGREDIENTS



THIS PRODUCT IS A MIXTURE.

| CHEMICAL NAME | WEIGHT %* | CAS # |
|------------------------|-----------|------------|
| MONOAMMONIUM PHOSPHATE | 85 | 7722-76-1 |
| BARIUM SULFATE | 10 | 7727-43-7 |
| MICA | <3 | 12001-26-2 |
| SILICA | <2 | 7631-86-9 |
| STANNOUS OCTOATE | <.3 | 301-10-0 |
| SILICONE | <.1 | 63148-57-2 |
| PIGMENT | <.1 | 6358-31-2 |

* % IS ROUNDED TO THE NEAREST APPROPRIATE NUMBER. VALUES ARE NOT TO BE CONSIDERED PRODUCT SPECIFICATIONS

SECTION IV. FIRST AID MEASURES



EYE EXPOSURE:

FLUSH EYES WITH WATER UNTIL PAIN-FREE. IF IRRITATION DEVELOPS OR PERSISTS, SEEK MEDICAL ATTENTION.

SKIN EXPOSURE:

WASH WITH PLENTY OF SOAP AND WATER. IF IRRITATION DEVELOPS OR PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION:

MOVE VICTIM TO FRESH AIR. IF IRRITATION DEVELOPS OR PERSISTS, SEEK MEDICAL ATTENTION.

INGESTION:

IF VICTIM IS CONSCIOUS AND ALERT, GIVE 2-3 GLASSES OF WATER TO DRINK. DO NOT INDUCE VOMITING. IF VOMITING OCCURS AND THE VICTIM IS CONSCIOUS, GIVE ADDITIONAL WATER TO FURTHER DILUTE THE CHEMICAL. PREVENT ASPIRATION OF SWALLOWED PRODUCT BY LAYING VICTIM ON SIDE WITH HEAD LOWER THAN THEIR WAIST. SEEK MEDICAL ATTENTION. DO NOT LEAVE VICTIM UNATTENDED.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

INHALATION OF THE PRODUCT MAY AGGRAVATE EXISTING CHRONIC RESPIRATORY CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, OR BRONCHITIS. CONTACT WITH THE SKIN MAY AGGRAVATE AN EXISTING SKIN DISEASE. CHRONIC OVEREXPOSURE MAY CAUSE PNEUMOCONIOSIS ("DUSTY LUNG" DISEASE).

SECTION V. FIREFIGHTING MEASURES



EXTINGUISHING MEDIA:

N/A. THIS PRODUCT IS AN EXTINGUISHING AGENT. IT IS NONFLAMMABLE AND NONCOMBUSTIBLE.

SPECIAL FIREFIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS:

THIS PRODUCT MAY DECOMPOSE IN FIRE AND RELEASE OXIDES OF CARBON, POTASSIUM, AND NITROGEN (REFER TO SECTION X).

SENSITIVITY TO MECHANICAL IMPACT OR STATIC DISCHARGE: NONE

SECTION VI. ACCIDENTAL RELEASE MEASURES



IN CASE OF ACCIDENTAL RELEASE, USE THE APPROPRIATE RESPIRATORY PROTECTION. CLEAN UP THE PRODUCT USING A VACUUM OR WET SWEEP AND SHOVEL TO MINIMIZE THE GENERATION OF DUST. BAG OR DRUM THE PRODUCT FOR DISPOSAL. IF THE PRODUCT IS USED AND/OR CONTAMINATED, USE PERSONAL PROTECTIVE EQUIPMENT AND CONTAINMENT MEANS THAT ARE APPROPRIATE FOR THE COMPOSITION OF THE MIXTURE. PRODUCT SHOULD BE PREVENTED FROM ENTERING WATERWAYS.

SECTION VII. HANDLING AND STORAGE



AVOID EYE, RESPIRATORY, AND SKIN EXPOSURE. USE THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT WHEN HANDLING. WASH THOROUGHLY AFTER HANDLING (REFER TO SECTION VIII). PRODUCT SHOULD BE STORED IN ITS ORIGINAL CONTAINER OR EXTINGUISHER. WHEN THE PRODUCT IS CONTAINED UNDER PRESSURE (E.G., AN EXTINGUISHER), INSPECT THE CONTAINER FOR RUST OR DAMAGE THAT MAY COMPROMISE THE CONTAINER INTEGRITY. DO NOT STORE THE PRODUCT IN HIGH HUMIDITY AND DO NOT MIX WITH OTHER EXTINGUISHING AGENTS, PARTICULARLY POTASSIUM BICARBONATE BASED AGENTS.

SECTION VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION



EXPOSURE GUIDELINES:

| | OSHA PEL | ACGIH TLV |
|-----------------------|---------------------------------------|---------------------------------------|
| MONOAMONIUM PHOSPHATE | PARTICULATES NOT OTHERWISE CLASSIFIED | PARTICULATES NOT OTHERWISE CLASSIFIED |
| | TOTAL DUST: 15 MG/M3 | TOTAL DUST: 10 MG/M3 |
| | RESPIRABLE FRACTION: 5 MG/M3 | RESPIRABLE FRACTION: 3 MG/M3 |
| BARIUM SULFATE | PARTICULATES NOT OTHERWISE CLASSIFIED | PARTICULATES NOT OTHERWISE CLASSIFIED |
| | TOTAL DUST: 15 MG/M3 | TOTAL DUST: 10 MG/M3 |
| | RESPIRABLE FRACTION: 5 MG/M3 | RESPIRABLE FRACTION: 3 MG/M3 |
| MICA | 6 MG/M3 | 3 MG/M3 |

| | | |
|------------------|---------------|---------------|
| SILICA | 6 MG/M3 | 10 MG/M3 |
| STANNOUS OCTOATE | .1 MG/M3 | .1 MG/M3 |
| SILICONE | NOT REGULATED | NOT REGULATED |
| PIGMENT | NOT REGULATED | NOT REGULATED |

DURING THE USE OF THIS PRODUCT ON FIRES, EXHAUST GASES AND PRODUCTS OF INCOMPLETE COMBUSTION ARE THE MAIN RESPIRATORY HAZARDS. IN THE MANUFACTURE OF THIS PRODUCT, EMPLOYERS AND EMPLOYEES MUST USE THEIR COLLECTIVE JUDGMENT IN DETERMINING THE ON-THE-JOB SETTINGS WHERE THE USE OF A DUST MASK OR RESPIRATOR IS PRUDENT. THE NEED FOR RESPIRATORY PROTECTION IS NOT LIKELY FOR SHORT-TERM USE IN WELL-VENTILATED AREAS.

RESPIRATORY PROTECTION:

USE AN N-95 DUST MASK FOR LIMITED EXPOSURES AND USE AIR-PURIFYING RESPIRATORS WITH HIGH EFFICIENCY PARTICULATE AIR FILTERS (HEPA FILTERS) FOR PROLONGED EXPOSURES.

EYE PROTECTION:

WEAR CHEMICAL GOGGLES OR FULL-FACE AIR-PURIFYING RESPIRATOR.

SKIN PROTECTION:

USE NITRILE, LATEX, OR SIMILAR GLOVES AND COVERALLS. GOOD PERSONAL HYGIENE PRACTICES ARE ESSENTIAL. AFTER HANDLING THE PRODUCT, AVOID FOOD, TOBACCO PRODUCTS, OR OTHER MEANS OF TRANSFERRING THE PRODUCT FROM HAND TO MOUTH UNTIL AFTER THOROUGHLY WASHING.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES



APPEARANCE AND ODOR: LIGHT YELLOW FINE POWDER THAT IS ODORLESS.

APPARENT DENSITY: 0.82

SOLUBILITY:

THE PRODUCT IS COATED WITH WATER REPELLANT SILICONE. NOT IMMEDIATELY SOLUBLE IN WATER.

PH: APPROXIMATELY 4 -5

FLASH POINT: N/A

FLAMMABILITY: N/A

VAPOR PRESSURE: N/A

BOILING POINT: N/A

EXPLOSIVE OR OXIDIZING PROPERTIES: NONE

SECTION X. STABILITY AND REACTIVITY



STABILITY: STABLE

INCOMPATIBLES:

MAGNESIUM, STRONG OXIDIZERS SUCH AS CALCIUM HYPOCHLORITE (POOL CHLORINE), STRONG ALKALIS, AND ISOCYANURIC ACIDS.

DECOMPOSITION PRODUCTS:

THIS PRODUCT MAY DECOMPOSE IN FIRE AND RELEASE CARBON MONOXIDE, CARBON DIOXIDE, AND SULFUR DIOXIDE. OXIDES OF PHOSPHOROUS AND AMMONIA HAVE BEEN REPORTED.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARDOUS REACTIONS: NONE

SECTION XI. TOXICOLOGICAL INFORMATION



ACUTE TOXICITY:

MONOAMMONIUM PHOSPHATE LD50 (RAT): >1000 MG/KG BODY WEIGHT.

TARGET ORGANS IN HUMANS:

RESPIRATORY SYSTEM, EYES, AND SKIN. THIS PRODUCT IS AN IRRITANT TO EPITHELIAL TISSUE AND MAY AGGRAVATE DERMATITIS. NO INDICATION THAT THE PRODUCT CAUSES SENSITIZATION.

CHRONIC TOXICITY:

PNEUMOCONIOSIS, OR "DUSTY LUNG" DISEASE, MAY RESULT FROM CHRONIC EXPOSURE TO ANY DUST.

REPRODUCTIVE TOXICITY:

THIS PRODUCT IS NOT KNOWN TO HAVE ANY REPRODUCTIVE EFFECTS.

SECTION XII. ECOLOGICAL INFORMATION



ECOTOXICITY:

NEGATIVE EFFECTS ARE UNKNOWN. PROVIDES NUTRIENT NITROGEN AND PHOSPHOROUS TO PLANT LIFE.

DEGRADABILITY: DEGRADES RAPIDLY IN WET OR HUMID ENVIRONMENT.

BIOACCUMULATION: UNKNOWN EXTENT.

MOBILITY IN SOIL: WATER-SOLUBLE. MAY LEECH IN TO GROUNDWATER.

SECTION XIII. DISPOSAL CONSIDERATION



THIS PRODUCT IS NOT A RCRA CHARACTERISTICALLY HAZARDOUS OR LISTED HAZARDOUS WASTE. DISPOSE OF ACCORDING TO STATE OR LOCAL LAWS, WHICH MAY BE MORE RESTRICTIVE THAN FEDERAL REGULATIONS. BE AWARE THAT PRODUCT USED ON A FIRE MAY BE ALTERED OR CONTAMINATED AND THEREBY REQUIRE DIFFERENT DISPOSAL CONSIDERATIONS.

SECTION XIV. TRANSPORTATION INFORMATION



THIS PRODUCT IS NOT DEFINED AS A HAZARDOUS MATERIAL UNDER U.S. DEPARTMENT OF TRANSPORTATION 49 CFR 172, OR BY TRANSPORT CANADA "TRANSPORTATION OF DANGEROUS GOODS" REGULATIONS.

PLEASE NOTE:

ALTHOUGH THIS MATERIAL IS NOT CONSIDERED HAZARDOUS, WHEN CONTAINED IN A STORED PRESSURE FIRE EXTINGUISHER PRESSURIZED WITH A NONFLAMMABLE GAS, THE EXTINGUISHER ITSELF IS CONSIDERED A HAZARDOUS MATERIAL BY THE U.S. DEPARTMENT OF TRANSPORTATION (USDOT) AND TRANSPORT CANADA (TC). THE PROPER SHIPPING NAME SHALL BE FIRE EXTINGUISHER AND THE UN IDENTIFICATION NUMBER IS UN 1044. THE USDOT HAZARD CLASS IS LIMITED QUANTITY WHEN PRESSURIZED TO LESS THAN 241 PSIG AND WHEN SHIPPED VIA HIGHWAY OR RAIL. USE CLASS 2.2, NON-FLAMMABLE GAS, WHEN SHIPPING VIA AIR.

SECTION XV. REGULATORY INFORMATION



INTERNATIONAL INVENTORY STATUS:

ALL INGREDIENTS ARE ON THE FOLLOWING INVENTORIES

| COUNTRY | AGENCY |
|-------------|---------------|
| U.S.A. | TSCA |
| CANADA | DSL |
| EUROPE | EINECS/ELINCS |
| AUSTRALIA | AICS |
| JAPAN | MITI |
| SOUTH KOREA | KECL |

EUROPEAN RISK AND SAFETY PHRASES:

EU CLASSIFICATION: HARMFUL

R PHRASES:

22: HARMFUL IF SWALLOWED

36/37/38: IRRITATING TO EYES, RESPIRATORY SYSTEM, AND SKIN.

S PHRASES:

26:

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE

36: WEAR SUITABLE PROTECTIVE CLOTHING

U.S. FEDERAL REGULATORY INFORMATION:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE UNDER SARA REPORTING REQUIREMENTS OR HAVE SARA THRESHOLD PLANNING QUANTITIES OR CERCLA REPORTABLE QUANTITIES, OR ARE REGULATED UNDER TSCA 8(D).

STATE REGULATORY INFORMATION:

CHEMICALS IN THIS PRODUCT ARE COVERED UNDER THE SPECIFIC STATE REGULATIONS NOTED:

ALASKA:

DESIGNATED TOXIC AND HAZARDOUS SUBSTANCES: NONE

CALIFORNIA:

PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS: NONE

FLORIDA:

SUBSTANCE LIST: MICA DUST

ILLINOIS:

TOXIC SUBSTANCE LIST: NONE

KANSAS:

SECTION 302/303 LIST: NONE

MASSACHUSETTS:

SUBSTANCE LIST: MICA DUST

MINNESOTA:

LIST OF HAZARDOUS SUBSTANCES: NONE

MISSOURI:

EMPLOYER INFORMATION/TOXIC SUBSTANCE LIST: NONE

NEW JERSEY:

RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST: NONE

NORTH DAKOTA:

LIST OF HAZARDOUS CHEMICALS, REPORTABLE QUANTITIES: NONE

PENNSYLVANIA:

HAZARDOUS SUBSTANCE LIST: NONE

RHODE ISLAND:

HAZARDOUS SUBSTANCE LIST: MICA DUST

TEXAS:

HAZARDOUS SUBSTANCE LIST: NO

WEST VIRGINIA:

HAZARDOUS SUBSTANCE LIST: NONE

WISCONSIN:

TOXIC AND HAZARDOUS SUBSTANCES: NONE

CALIFORNIA PROPOSITION 65:

NO COMPONENT IS LISTED ON THE CALIFORNIA PROPOSITION 65 LIST

SECTION XVI. OTHER INFORMATION



THIS SAFETY DATA SHEET PREPARED IN ACCORDANCE WITH OSHA'S HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) AND THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)

HMIS RATINGS:

HEALTH

1

FLAMMABILITY

0

REACTIVITY

0

PERSONAL PROTECTIVE EQUIPMENT USE N-95 DUST MASK (SEE SECTION 8)

WHMIS (CANADIAN WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION):

D2B: MAY IRRITATE EYES, MUCOUS MEMBRANES, AND/OR SKIN

THE INFORMATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATIONS. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE.



SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: ABC Dry Chemical Fire Extinguishant
 Other Identifiers: Multi-purpose Dry Chemical
 Product Code(s): CH555, F13, F11
 Model Code(s) of Extinguishers: 402, IS 18ABC, IS35ABC, IS 45ABC, 13ABC, V25ABC, VH25ABC, V30ABC, VH30ABC, V50ABC, VS50ABC, VS75ABC, V250ABC
 Recommended Use: Fire suppression, not for human or animal drug use.
 Manufacturer: AMEREX CORPORATION
 Internet Address: www.amerex-fire.com
 Address: 7595 Gadsden Highway, P.O. Box 81
 Trussville, AL 35173-0081
 Company Telephone: (205) 655-3271
 E-mail Address: info@amerex-fire.com
 Emergency Contacts: Chemtrec 1(800) 424-9300 or (703) 527-3887
 Revised: March 13, 2018

Section 2. HAZARDS IDENTIFICATION

GHS – Classification

| Health | Environmental | Physical |
|---------------------------------------|---------------|----------|
| Acute Toxicity: Category 5 | None | None |
| Skin Corrosion/Irritation: Category 3 | None | None |
| Skin Sensitization: NO | None | None |
| Eye: Category 2A | None | Warning |
| STOT – Category 3 | None | Warning |
| Carcinogen: Category None | None | None |

GHS – Label Symbol(s):

If Pressurized: Gas Under Pressure

GHS – Words(s): Warning

Other Hazards Not Resulting in Classification: Mica may contain small quantities of quartz (crystalline silica). Prolonged exposure to respirable crystalline silica dust at concentrations exceeding the occupational exposure limits may increase the risk of developing a disabling

lung disease known as silicosis. IARC found limited evidence for pulmonary carcinogenicity of crystalline silica in humans. In the case of normal use of this product, exposure to silica should be nil.

The attapulgite clay used in this product has a fiber length of less than 5µm; therefore, the clay is not considered to be carcinogenic in animals or humans.

GHS – Hazard Phrases

| GHS Hazard | GHS Codes(s) | Code Phrase(s) |
|-----------------------|--|--|
| Physical | H229 | *- Contents under pressure; may explode if heated. |
| Health | H303 315 319 335 | May be harmful if swallowed Causes skin irritation Causes serious eye irritation May cause respiratory irritation |
| Environmental | None | |
| Precautionary: | | |
| General | P101 | If medical advice is needed, have product container or label at hand |
| Prevention | P251 261 264 280 | Do not pierce or burn, even after use. Avoid breathing dust/fumes/gas/mist/vapours/spray. Wash exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. |
| Response | P312 321 362 302+352 304+340 305+351+338 332+313 342+311 337+313 | Call a doctor if you feel unwell. Specific treatment (see Section 4. First Aid Measures) Take off contaminated clothing. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If skin irritation occurs: Get medical advice/attention. If experiencing respiratory symptoms: Call a doctor. If eye irritation persists get medical advice/attention. |
| Storage | P410 +403 | *- Protect from sunlight. Store in well-ventilated place. |
| Disposal | P501 | Dispose of contents through a licensed disposal company. Contaminated container should be disposed of as unused product. |

*- If under pressure

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | EC No. | REACH Reg. No. | CAS-No. | Weight % | Classification |
|---|-----------|-----------------------|------------|----------|----------------|
| Mono-ammonium phosphate | 231-764-5 | 01-2119488166-29 | 7722-76-1 | 80-98 | NA |
| Attapulgite clay | 601-805-5 | Not Available | 12174-11-7 | 3-16 | NA |
| Mica-potassium aluminum silicate | 310-1276 | Not Available | 12001-26-2 | 1-2 | NA |
| Silicone oil methyl hydrogen polysiloxane | 613-152-3 | Not Available | 63148-57-2 | <1 | NA |
| Calcium carbonate | 207-439-9 | Not Available | 1317-65-3 | <1 | NA |
| Amorphous silica precipitated synthetic zeolite | 231-545-4 | 01-2119379499-16-0036 | 7631-86-9 | <1 | NA |
| Yellow 14 pigment – di-azo dye | 226-789-3 | Not Available | 5468-75-7 | <1 | NA |

Emergency overview:

Light yellow, fine solid powder, odorless.

Adverse health effects and symptoms:

Mild irritant to the respiratory system. Irritant to eyes, and skin. Symptoms may include coughing,

shortness of breath, and irritation of the lungs, eyes, and skin. Ingestion, although unlikely, may cause cramps, nausea and diarrhea.

Section 4. FIRST AID MEASURES

| | |
|---|---|
| Eye Exposure: | May cause irritation. Irrigate eyes with water and repeat until pain free. Seek medical attention if irritation develops, or if vision changes occur. |
| Skin Exposure: | May cause skin irritation. In case of contact, wash with plenty of soap and water. Seek medical attention if irritation persists. |
| Inhalation: | May cause irritation, along with coughing. If respiratory irritation or distress occurs remove victim to fresh air. Seek medical attention if irritation persists. |
| Ingestion: | Overdose symptoms may include numbness or tingling in hands or feet, uneven heart rate, paralysis, feeling faint, chest pain or heavy feeling, pain spreading to the arm or shoulder, nausea, diarrhea, sweating, general ill feeling, or seizure (convulsions). If victim is conscious and alert, give 2-3 glasses of water to drink. If conscious, do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. |
| Medical conditions possibly aggravated by exposure: | Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease. Chronic overexposure may cause pneumoconiosis ("dusty lung" disease). |

Section 5. FIRE-FIGHTING MEASURES

| | |
|--------------------------------|---|
| Flammable Properties: | Not flammable |
| Flash Point: | Not determined |
| Suitable Extinguishing Media: | Non-combustible. Use extinguishing media suitable for surrounding conditions. |
| Hazardous Combustion Products: | Carbon oxides |

Explosion Data:

| | |
|--|---|
| Sensitivity to Mechanical Impact: | Not sensitive |
| Sensitivity to Static Discharge: | Not sensitive |
| Unusual fire/explosion hazards: | In a fire this material may decompose, releasing oxides of carbon, potassium and nitrogen (see Section 10). |
| Protective Equipment and Precautions for Firefighters: | As in any fire, wear self-contained breathing apparatus pressure-demand. NIOSH (approved or equivalent) and full protective gear. |

Section 6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------------|--|
| Personal Precautions: | Avoid contact with skin, eyes, and clothing. |
| Personal Protective Equipment: | Minimum - safety glasses, gloves, and a dust respirator. |
| Emergency Procedures: | NA |
| Methods for Containment: | Prevent further leakage or spillage if safe to do so. |
| Methods for Clean Up: | Avoid dust formation; clean up released material using vacuum or wet sweep and shovel to minimize generation of dust. Bag and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete. |
| Other: | If product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture. |

Section 7. HANDLING AND STORAGE

| | |
|------------------------------|---|
| Personal Precautions: | Use appropriate PPE when handling or maintaining equipment, and wash thoroughly after handling (see Section 8). |
| Conditions for Safe Storage: | Keep product in original container or extinguisher. Contents may be under pressure – inspect for extinguisher rust periodically to ensure container integrity. |
| Incompatible Products: | Do not mix with other extinguishing agents, particularly potassium bicarbonate and sodium bicarbonate. Incompatible with strong oxidizing agents and strong acids. Do not store in high humidity. Do not combine with chlorine compounds. |

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | OSHA PEL | ACGIH TLV | DFG MAK * | EU BLV |
|-------------------------|--|--|---|--------|
| Mono-ammonium phosphate | PNOC** Total dust, 15 mg/m ³ Respirable fraction, 5 mg/m ³ | PNOC Total dust, 10 mg/m ³ Respirable fraction, 3 mg/m ³ | PNOC Total dust, 4 mg/m ³ Respirable fraction, 1.5 mg/m ³ | NA |
| Mica | 6 mg/m ³ | 3 mg/m ³ | ----- | NA |
| Attapulgite clay | PNOC** Total dust, 15 mg/m ³ Respirable fraction, 5 mg/m ³ | PNOC Total dust, 10 mg/m ³ Respirable fraction, 3 mg/m ³ | PNOC Total dust, 4 mg/m ³ Respirable fraction, 1.5 mg/m ³ | |
| Silicone oil | NR** | NR | | |
| Calcium carbonate | PNOC Total dust, 15 mg/m ³ Respirable fraction, 5 mg/m ³ | PNOC Total dust, 10 mg/m ³ Respirable fraction, 3 mg/m ³ | ----- | NA |
| Amorphous silica | 20mppcf $\frac{80 \text{ mg/m}^3}{\text{or } \% \text{ SiO}_2}$ | 10 mg/m ³ | 4 mg/m ³ | NA |
| Yellow 14 pigment | NR | NR | NR | NA |

*German regulatory limits **PNOC = Particulates not otherwise classified (ACGIH) also known as Particulates not otherwise regulated (OSHA) *** NR = Not Regulated. All values are 8 hour time weighted average concentrations.

Engineering Controls:

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment – PPE Code E:

The need for respiratory protection is not probable during short-term exposure. During production, the manufacturer should use judgement concerning the need for PPE.



Eye/Face Protection:
Skin and Body Protection:
Respiratory Protection:

Tightly fitting safety goggles
Wear protective gloves/coveralls
If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. Use P100 respirators for limited exposure. Use air-purifying respirator (APR) with high efficiency particulate air (HEPA) filters for prolonged

exposure. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. The need for respiratory protection is not likely for short-term use in well ventilated areas.

Hygiene Measures:

Good personal hygiene practices essential, such as avoiding food, tobacco products, or other hand-to-mouth contact when handling. Wash thoroughly after handling.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: | Light yellow powder, finely divided odorless solid |
| Molecular Weight: | NH ₄ H ₂ PO ₄ : 115.03 |
| Odor: | Odorless |
| Odor Threshold: | No information available |
| Decomposition Temperature °C: | 100 - 120 |
| Freezing Point °C: | No information available |
| Initial Boiling Point °C: | No information available |
| Physical State: | Crystalline Powder |
| pH: | Approximately 4.4 to 4.9 |
| Flash Point °C: | None |
| Autoignition Temperature °C: | None |
| Boiling Point/Range °C: | No information available |
| Melting Point/Range °C: | NH ₄ H ₂ PO ₄ : 190 |
| Flammability/Explosion Limits in Air °C: | Upper – None; Lower-None |
| Explosive Properties: | None |
| Oxidizing Properties: | None |
| Volatile Component (%vol) | Not applicable |
| Evaporation Rate: | No information available |
| Vapor Density: | No information available |
| Vapor Pressure: | NH ₄ H ₂ PO ₄ : 1.41 mm/Hg |
| Specific gravity at 25 °C: | NH ₄ H ₂ PO ₄ : 1.80 |
| Solubility: | 40.4 g/100 ml |
| Partition Coefficient: | NH ₄ H ₂ PO ₄ Est: -4.11 |
| Viscosity: | No information available |

NOTE: NH₄H₂PO₄ – Monoammonium Phosphate

Section 10. STABILITY AND REACTIVITY

| | |
|-------------------------------------|--|
| Stability: | Stable under recommended storage and handling conditions. |
| Incompatibles: | Strong oxidizing agents; Strong acids; sodium hypochlorite and chlorine compounds. Protect from moisture |
| Conditions to Avoid: | Storage or handling near incompatibles. |
| Hazardous Decomposition Products: | Carbon, nitrogen, and potassium oxides. Heat of fire may release carbon monoxide. |
| Possibility of Hazardous Reactions: | None |
| Hazardous Polymerization | Does not occur |

Section 11. TOXICOLOGICAL INFORMATION

| | |
|----------------------------|---|
| Likely Routes of Exposure: | Inhalation, skin and eye contact. |
| Symptoms: | |
| Inhalation: | Irritation, coughing. |
| Eyes: | Irritation. |
| Skin: | Irritation. |
| Acute Toxicity: | Relatively non-toxic. |
| Chronic Toxicity: | |
| Short-term Exposure: | None known. |
| Long-term Exposure: | As with all dusts, pneumoconiosis, or "dusty lung" disease, may result from chronic exposure. |

Acute Toxicity Values - Health

| Chemical Name | LD50 | | LC50 (Inhalation) |
|-------------------------|--------------------|-----------------------|-------------------|
| | Oral | Dermal | |
| Mono-ammonium phosphate | 5750 mg/kg (rat) | >7940 mg/kg (rabbit) | Not available |
| Mica | None | None | None |
| Attapulgite clay | None | None | None |
| Silicone oil | None | None | None |
| Calcium carbonate | 6450 mg/kg (rat) | 500 mg/24 hr (rabbit) | Not available |
| Amorphous silica | >5000 mg/kg (rat) | >2000 mg/kg (rabbit) | >2.2 mg/L (rat) |
| Yellow 14 pigment | >17000 mg/kg (rat) | >3000 mg/kg (rat) | >4448 mg/m3 (rat) |

| | |
|-----------------------------------|---|
| Reproductive Toxicity: | This product's ingredients are not known to have reproductive or teratogenic effects. |
| Target Organs and Effects (TOST): | Respiratory system (mild irritant). This product is a mild irritant to epithelial tissue, (eyes, mucous membranes, skin) and may aggravate dermatitis. No information was found indicating the product causes sensitization. |

Other Toxicity Categories

| Chemical Name | Germ Cell Mutagenicity | Carcinogenicity | Reproductive | TOST Single Exp | TOST Repeated Exp | Aspiration |
|-------------------------|------------------------|-----------------|--------------|-----------------|-------------------|------------|
| Mono-ammonium phosphate | None | None | None | Cat 3 | None | None |
| Attapulgate clay | None | None | None | None | None | None |
| Mica | None | None | None | None | None | None |
| Silicone oil | None | None | None | None | None | None |
| Calcium carbonate | None | None | None | None | None | None |
| Amorphous silica | None | None | None | None | None | None |
| Yellow 14 pigment | None | None | None | None | None | None |

Section 12. ECOLOGICAL INFORMATION

| | |
|--|--|
| Ecotoxicity: | Negative effects unknown. Provides nutrient nitrogen and phosphorus to plant life. |
| Persistence/Degradability: | Degrades rapidly in humid/wet environment. |
| Probability of rapid biodegradation: | NH ₄ H ₂ PO ₄ Est: 0.693 (Rapid); (NH ₄) ₂ SO ₄ : Est: 0.684 (Rapid) |
| Anaerobic biodegradation probability: | NH ₄ H ₂ PO ₄ Est: 0.398 (Slow); (NH ₄) ₂ SO ₄ : Est: 0.398 (Slow) |
| Bioaccumulation potential: | Low. |
| Bioconcentration factor: | NH ₄ H ₂ PO ₄ : 3.16 L/kg (wet weight) (Low BCF) |
| Bioaccumulation factor: | NH ₄ H ₂ PO ₄ : 63.04 L/kg (wet weight) |
| Mobility in soil: | Slow evaporation rate; water soluble, may leach to groundwater |
| Log Koc: | NH ₄ H ₂ PO ₄ Est: -1.25 |
| Log Koa: | NH ₄ H ₂ PO ₄ Est: 16.72 |
| Log Kaw: | NH ₄ H ₂ PO ₄ Est: -20.86 |
| NOTE: NH ₄ H ₂ PO ₄ – Mono-ammonium Phosphate | |

Other Adverse Ecological Effects: No other known effects at this time

Aquatic Toxicity Values – Environment – Research

| Chemical Name | Acute (LC50) | Chronic (LC50) |
|-------------------------|--------------|----------------|
| Mono-ammonium phosphate | N/A | N/A |
| Mica | N/A | N/A |
| Attapulgate clay | N/A | N/A |
| Silicone oil | N/A | N/A |
| Calcium carbonate | N/A | N/A |
| Amorphous silica | N/A | N/A |
| Yellow 14 pigment | N/A | N/A |

Aquatic Toxicity Values – Environment – Estimates

| Chemical Name | Acute (LC50) | EC50 |
|-------------------------|--|-------------------------------|
| Mono-ammonium phosphate | 2,91e+07 mg/L Fish 96 hr; 9.4e+06 mg/l Daphnid 48 hr; | 6.70e+05 mg/L Gr. Algae 96 hr |
| Mica | N/A | N/A |
| Attapulgite clay | N/A | N/A |
| Silicone oil | N/A | N/A |
| Calcium carbonate | N/A | N/A |
| Amorphous silica | N/A | N/A |
| Yellow 14 pigment | N/A | N/A |

Section 13. DISPOSAL CONSIDERATIONS

Safe Handling

Use appropriate PPE when handling, and wash thoroughly after handling (see Section 8).

Waste Disposal Considerations

Dispose in accordance with federal, state, and local regulations.

Contaminated Packaging

Dispose in accordance with federal, state, and local regulations.

NOTES:

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal laws or regulations. Used product may be altered or contaminated, creating different disposal considerations.

Section 14. TRANSPORT INFORMATION

UN Number: NA
 UN Proper Shipping Name: NA
 Transport Hazard Class: NA
 Packing Group: NA
 Marine Pollutant?: NO

IATA Not regulated

DOT Not regulated

NOTES:

This product is not defined as a hazardous material under U.S. Department of Transportation (DOT) 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations.

Special Precautions for Shipping:

The transportation information above covers the ABC 555 dry chemical extinguisher agent as shipped in bulk containers and not when contained in fire extinguishers or fire extinguisher systems. If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, non-toxic

inert expellant gas, the fire extinguisher is considered a hazardous material by the US Department of Transportation and Transport Canada. The proper shipping name shall be FIRE EXTINGUISHER and the UN designation is UN 1044. The DOT hazard class/division is LIMITED QUANTITY when pressurized to less than 241 psig and when shipped via highway or rail. UN Class 2.2. Non-Flammable Gas, when shipping via air. Packing Group – N/A

Section 15. REGULATORY INFORMATION

International Inventory Status: All ingredients are on the following inventories

| Country(ies) | Agency | Status |
|--------------------------|---------------|--------|
| United States of America | TSCA | Yes |
| Canada | DSL | Yes |
| Europe | EINECS/ELINCS | Yes |
| Australia | AICS | Yes |
| Japan | MITI | Yes |
| South Korea | KECL | Yes |

REACH Title XVII Restrictions: No information available

| Chemical Name | Dangerous Substances | Organic Solvents | Harmful Substances Whose Names Are to be Indicated on Label | Pollution Release and Transfer Registry (Class II) | Pollution Release and Transfer Registry (Class I) | Poison and Deleterious Substances Control Law |
|------------------------|----------------------|------------------|---|--|---|---|
| Monoammonium Phosphate | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |

| Component | ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying | ISHA – Harmful Substances Requiring Permission | Toxic Chemical Classification Listing (TCCL) – Toxic Chemicals | Toxic Release Inventory (TRI) – Group I | Toxic Release Inventory (TRI) – Group II |
|--|---|--|--|---|--|
| Monoammonium Phosphate 7722-76-1 | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Attapulgitte clay 12174-11-7 (>3) | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Mica-potassium aluminum silicate 120001-26-2 (>2) | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Calcium carbonate 471-34-1 | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Amorphous silica 69012-64-2 | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Yellow 14 pigment 5468-75-7 | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |

European Risk and Safety phrases:

| | | |
|--------------------|---------------|---|
| EU Classification: | Xn - Irritant | |
| R Phrases: | 20 | Harmful by inhalation. |
| | 36/37/38 | Irritating to eyes, respiratory system and skin. |
| S Phrases: | 22 | Do not breath dust. |
| | 24/25 | Avoid contact with skin and eyes |
| | 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | 36 | Wear suitable protective clothing. |

U.S. Federal Regulatory Information:

SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) - This product does not contain and chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

None of the chemicals in this product are under SARA reporting requirements or have SARA threshold planning quantities (TPQs) or CERCLA reportable quantities (RQs), or are regulated under TSCA 8(d).

SARA 311/312 Hazard Categories:

| | |
|-------------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| *-Sudden Release of Pressure Hazard | Yes |
| Reactive Hazard | No |

* - Only applicable if material is in a pressurized extinguisher.

Clean Water/Clean Air Acts:

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42) or Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61) and Section 112 of the Clean Air Act Amendments of 1990.

U.S. State Regulatory Information:

Chemicals in this product are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: None

California – Permissible Exposure Limits for Chemical Contaminants: None

Florida – Substance List: Mica Dust

Illinois – Toxic Substance List: None

Kansas – Section 302/303 List: None

Massachusetts – Substance List: Mica Dust

Minnesota – List of Hazardous Substances: None
Missouri – Employer Information/Toxic Substance List: None
New Jersey – Right to Know Hazardous Substance List: None
North Dakota – List of Hazardous Chemicals, Reportable Quantities: None
Pennsylvania – Hazardous Substance List: None
Rhode Island – Hazardous Substance List: Mica Dust
Texas – Hazardous Substance List: No
West Virginia – Hazardous Substance List: None
Wisconsin – Toxic and Hazardous Substances: None

California Proposition 65: No component is listed on the California Proposition 65 list.

Other:

| | |
|-----------------------------|---------------------|
| Mexico – Grade | No component listed |
| Canada – WHMIS Hazard Class | No component listed |

| |
|--------------------------------------|
| Section 16. OTHER INFORMATION |
|--------------------------------------|

This SDS conforms to requirements under U.S., U.K., Canadian, Australian, and EU regulations or standards, and conforms to the proposed 2003 ANSI Z400.1 format.

| | |
|----------------|---------------|
| Issuing Date | 17-June-2012 |
| Revision Date | 13-March-2018 |
| Revision Notes | None |

The information herein is given in good faith but no warranty, expressed or implied, is made. Updated by William F. Garvin, CIH.


SAFETY DATA SHEET

Acetylene

Section 1. Identification

| | |
|--------------------------------------|---|
| GHS product identifier | : Acetylene |
| Chemical name | : acetylene |
| Other means of identification | : Ethyne; Ethine; Narcylen; C ₂ H ₂ ; Acetylen; UN 1001; Vinylene |
| Product type | : Gas. |
| Product use | : Synthetic/Analytical chemistry. |
| Synonym | : Ethyne; Ethine; Narcylen; C ₂ H ₂ ; Acetylen; UN 1001; Vinylene |
| SDS # | : 001001 |
| Supplier's details | : Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253 |
| 24-hour telephone | : 1-866-734-3438 |

Section 2. Hazards identification

| | |
|---|---|
| OSHA/HCS status | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| Classification of the substance or mixture | : FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Compressed gas |
| GHS label elements | |
| Hazard pictograms | :  |
| Signal word | : Danger |
| Hazard statements | : Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation. May form explosive mixtures with air. |
| Precautionary statements | |
| General | : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Fusible plugs in top, bottom, or valve melt at 98°C to 107°C (208°F to 224°F). Do not discharge at pressures above 15psig (103kpa). Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Approach suspected leak area with caution. |
| Prevention | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| Response | : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources. |
| Storage | : Protect from sunlight. Store in a well-ventilated place. |
| Disposal | : Not applicable. |
| Hazards not otherwise classified | : In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation. |

Section 3. Composition/information on ingredients

| | |
|--------------------------------------|---|
| Substance/mixture | : Substance |
| Chemical name | : acetylene |
| Other means of identification | : Ethyne; Ethine; Narcylen; C2H2; Acetylen; UN 1001; Vinylene |
| Product code | : 001001 |

CAS number/other identifiers

CAS number : 74-86-2

| Ingredient name | % | CAS number |
|-----------------|-----|------------|
| Acetylene | 100 | 74-86-2 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

| | |
|---------------------|--|
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs. |
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : As this product is a gas, refer to the inhalation section. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

| | |
|---------------------|--|
| Eye contact | : Contact with rapidly expanding gas may cause burns or frostbite. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Contact with rapidly expanding gas may cause burns or frostbite. |
| Frostbite | : Try to warm up the frozen tissues and seek medical attention. |
| Ingestion | : As this product is a gas, refer to the inhalation section. |

Over-exposure signs/symptoms

| | |
|---------------------|---------------------|
| Eye contact | : No specific data. |
| Inhalation | : No specific data. |
| Skin contact | : No specific data. |
| Ingestion | : No specific data. |

Indication of immediate medical attention and special treatment needed, if necessary

| | |
|----------------------------|---|
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : No specific treatment. |

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.
- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Use only non-sparking tools. Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|---|
| Acetylene | <p>NIOSH REL (United States, 10/2016). CEIL: 2662 mg/m³ CEIL: 2500 ppm</p> <p>ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> <p>California PEL for Chemical Contaminants (Table AC-1) (United States). Oxygen Depletion [Asphyxiant].</p> |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas.
- Color** : Colorless.
- Odor** : Mild. Ethereal.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -81°C (-113.8°F)
- Boiling point** : Not available.
- Critical temperature** : 35.25°C (95.5°F)
- Flash point** : Closed cup: -18.15°C (-0.67°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials.
Highly flammable in the presence of the following materials or conditions: heat.
- Lower and upper explosive (flammable) limits** : Lower: 2.5%
Upper: 100%
- Vapor pressure** : 635 (psig)
- Vapor density** : 0.907 (Air = 1)
- Specific Volume (ft³/lb)** : 14.7058
- Gas Density (lb/ft³)** : 0.0691
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : 1.2 g/l
- Partition coefficient: n-octanol/water** : 0.37
- Auto-ignition temperature** : 305°C (581°F)

Section 9. Physical and chemical properties

| | |
|----------------------------------|-------------------|
| Decomposition temperature | : Not available. |
| Viscosity | : Not applicable. |
| Flow time (ISO 2431) | : Not available. |
| Molecular weight | : 26.04 g/mole |
| Aerosol product | |
| Heat of combustion | : -48257522 J/kg |

Section 10. Stability and reactivity

| | |
|---|---|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| Incompatible materials | : Oxidizers |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hazardous polymerization | : Under normal conditions of storage and use, hazardous polymerization will not occur. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Section 11. Toxicological information

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Contact with rapidly expanding gas may cause burns or frostbite.
Inhalation : No known significant effects or critical hazards.
Skin contact : Contact with rapidly expanding gas may cause burns or frostbite.
Ingestion : As this product is a gas, refer to the inhalation section.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Section 12. Ecological information

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Acetylene | 0.37 | - | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT | TDG | Mexico | IMDG | IATA |
|----------------------------|--|--|--|--|--|
| UN number | UN1001 | UN1001 | UN1001 | UN1001 | UN1001 |
| UN proper shipping name | ACETYLENE, DISSOLVED | ACETYLENE, DISSOLVED | ACETYLENE, DISSOLVED | ACETYLENE, DISSOLVED | ACETYLENE, DISSOLVED |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |

“Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product.”

Additional information

- DOT Classification** : **Limited quantity** Yes.
Quantity limitation Passenger aircraft/rail: Forbidden. Cargo aircraft: 15 kg.
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).

Explosive Limit and Limited Quantity Index
0

Passenger Carrying Vessel Index
75

Passenger Carrying Road or Rail Index
Forbidden

Section 14. Transport information

Special provisions

38

IATA : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. Cargo Aircraft Only: 15 kg.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Air Act (CAA) 112 regulated flammable substances: acetylene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

New York : This material is not listed.

New Jersey : This material is listed.

Pennsylvania : This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

| | |
|--------------------------|---|
| Australia | : This material is listed or exempted. |
| Canada | : This material is listed or exempted. |
| China | : This material is listed or exempted. |
| Europe | : This material is listed or exempted. |
| Japan | : Japan inventory (ENCS) : This material is listed or exempted. Japan inventory (ISHL) : Not determined. |
| New Zealand | : This material is listed or exempted. |
| Philippines | : This material is listed or exempted. |
| Republic of Korea | : This material is listed or exempted. |
| Taiwan | : This material is listed or exempted. |
| Thailand | : Not determined. |
| Turkey | : This material is listed or exempted. |
| United States | : This material is active or exempted. |
| Viet Nam | : This material is listed or exempted. |

Section 16. Other information

[Hazardous Material Information System \(U.S.A.\)](#)

| | | |
|------------------|---|---|
| Health | / | 0 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

[National Fire Protection Association \(U.S.A.\)](#)



Note: The instability hazard rating for acetylene, dissolved (stabilized acetylene) is 2.

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

[Procedure used to derive the classification](#)

| Classification | Justification |
|---|---|
| FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Compressed gas | Expert judgment According to package |

Section 16. Other information

History

Date of printing : 11/11/2020

Date of issue/Date of revision : 11/11/2020

Date of previous issue : 3/6/2020

Version : 2.01

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

11/10/2020

AEROKROIL

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------|--|
| Product Name: | AEROKROIL |
| Product Use: | Penetrant/Lubricant for Industrial Use |
| Manufacturer: | Kano Laboratories, Inc., 1000 E. Thompson Lane Nashville, TN 37211 |
| Emergency Phone Number: | Chemtrec 1 (800) 424-9300 |
| Manufacturer Phone Number: | 615-833-4101 |
| Website: | www.kroil.com |
| SDS Date of Preparation: | November 10, 2020 |

SECTION 2: HAZARDS IDENTIFICATION

GHS / HAZCOM 2012 Classification:

| HEALTH | PHYSICAL |
|---|--|
| Skin Irritation Category 2 Eye Irritation Category 2A Aspiration Hazard Category 1 Skin Sensitization Category 1 | Flammable Aerosol Category 2 Gas Under Pressure: Compressed Gas |

Label Elements

DANGER!

Flammable aerosol.

Contains gas under pressure: may explode if heated. Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Do not spray on an open flame or other ignition source.

Pressurized container. Do not pierce or burn, even after use.

Wash thoroughly after handling.

Contaminated clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection.

IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical attention.

In case of fire: Use carbon dioxide, dry chemical or foam to extinguish. Protect from sunlight.

Do not expose to temperatures exceeding 50°C/122°F.

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS# | % |
|---|--------------------------|--------|
| Severely Hydrotreated Petroleum Distillates | 64742-52-5 64742-53-6 | 30-50 |
| LVP Aliphatic Hydrocarbon | 64742-47-8 | 20-40 |
| Proprietary Additive | Proprietary | 5-15 |
| Diisobutyl Ketone | 108-83-8 | 5-15 |
| Aliphatic Alcohol #1 | 123-42-2 | 1 - <3 |
| Aliphatic Alcohol #2 | 78-83-1 | 1 - <3 |
| Carbon Dioxide Propellant | 124-38-9 | 1-5 |

The exact percentage has been withheld as a trade secret or is a variation in formula.

SECTION 4: FIRST AID MEASURES

EYE: Rinse thoroughly with water for several holding the eye lids open to be sure the material is washed out. Get medical attention if irritation develops or persists.

SKIN: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use.

INHALATION: Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if symptoms develop.

INGESTION: DO NOT induce vomiting. Keep the victim calm and warm. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE AND DELAYED: May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, nausea and vomiting. Harmful or fatal if swallowed. Aspiration into the lungs during ingestion or vomiting may cause lung damage. May cause an allergic skin reaction.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: If swallowed, get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical or foam. Water may be ineffective but can be used to cool containers and structures.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Contents under pressure. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 120oF may cause cans to burst. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

Never use welding or cutting torch on or near containers (even empty) because product can ignite explosively. Combustion products may be hazardous: Oxides of carbon, organic compounds, smoke and fumes.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Protect against bursting cans.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Ventilate the area with explosion-proof equipment.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Report spills and releases as required to appropriate authorities.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Place leaking can in a pail or pan in a well-ventilated area until the pressure has been released. Cover liquid with an inert absorbent material and collect into an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash exposed skin thoroughly with soap and water after use. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Do not cut, braze, solder, grind or weld on or near containers. Contents under pressure. Do not puncture or incinerate container.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a cool, well ventilated area at temperatures below 120°F. Do not store in direct sunlight. Store as a Level 3 aerosol.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| CHEMICAL NAME | EXPOSURE LIMITS |
|---|--|
| Severely Hydrotreated Petroleum Distillates (as mineral oil) | 5 mg/m ³ TWA OSHA PEL (as oil mist) 5 mg/m ³ TWA ACGIH TLV (inhalable fraction) |
| LVP Aliphatic Hydrocarbon | 166 ppm TWA Manufacturer Recommended (vapor) |
| Proprietary Additive | None Established |
| Diisobutyl Ketone | 50 ppm TWA OSHA PEL 25 ppm TWA ACGIH TLV |
| Aliphatic Alcohol #1 | 50 ppm OSHA TWA PEL 50 ppm TWA ACGIH TLV |
| Aliphatic Alcohol #2 | 100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV |
| Carbon Dioxide Propellant | 5000 ppm TWA OSHA PEL 5000 ppm TWA ACGIH TLV 30000 ppm STEL ACGIH TLV |

APPROPRIATE ENGINEERING CONTROLS: Use with adequate general or local exhaust ventilation to maintain concentrations below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: If the exposure limits listed above are exceeded, a NIOSH approved respirator with organic vapor cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

HAND PROTECTION: Impervious gloves are recommended when needed to avoid skin contact.

EYE PROTECTION: Chemical safety goggles recommended.

SKIN PROTECTION: Impervious clothing as required to prevent skin contact and contamination of personal clothing.

HYGIENE MEASURES: Suitable eye wash and washing facilities should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--|----------------------------------|---|
| Appearance: | Slightly reddish liquid packaged as an aerosol | Odor: | Solvent |
| Odor Threshold: | Not available | pH: | Not available |
| Melting/Freezing Point: | Not available | Boiling Point/Range: | Not available |
| Flash Point: | 132°F (55.5°C) TOC | Evaporation Rate: | Not available |
| Flammability: (Solid, Gas) | Not applicable | Flammability Limits: | 10.9% (aliphatic alcohol #2) LEL: 0.7% (petroleum distillates) |
| Vapor Pressure: | Not available | Vapor Density: | Not available |
| Relative Density: | 0.8596 | Solubilities: | Negligible in Water |
| Partition Coefficient: (N-Octanol/Water) | Not available | Autoignition Temperature: | Not available |
| Decomposition Temperature: | Not available | Viscosity: | Not available |

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: None known.

CHEMICAL STABILITY: Stable under normal conditions of storage or use.

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Avoid heat, sparks, flames and all other sources of ignition.

INCOMPATIBLE MATERIALS: Avoid strong oxidizing agents, reducing agents, acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce oxides of carbon, acetone, acrid fumes and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

EYE: May cause eye irritation with redness, tearing and stinging.

SKIN: May cause irritation with redness, rash, swelling. Prolonged or repeated contact may result in defatting and dermatitis. Repeated skin contact may cause sensitization (allergic skin reaction) in some individuals.

INHALATION: Inhalation of vapors or mists may cause mucous membrane and upper respiratory tract irritation and central nervous system depression. Symptoms may include coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea, fatigue and unconsciousness.

INGESTION: Ingestion is an unlikely route of exposure for aerosol products. Swallowing may cause gastrointestinal irritation with abdominal pain, nausea, vomiting and diarrhea and central nervous system depression with symptoms including headache, dizziness, intoxication, weakness, nausea, and vomiting. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

CHRONIC HAZARDS: Aliphatic Alcohol #1 is suspected of damaging fertility or the unborn child.

CARCINOGEN STATUS: None of the components of this product at greater than 0.1% are listed as carcinogens by OSHA, IARC or NTP.

ACUTE TOXICITY: Toxicological testing has not been performed on this product as a mixture.

LVP Aliphatic Hydrocarbon: Oral rat LD50 > 5000 mg/kg; Dermal rat LD50 > 5000 mg/kg; Inhalation rat LC50 > 2.18 mg/L/4 hr.

Severely Hydrotreated Petroleum Distillates: Oral rat LD50 >5000 mg/kg, Inhalation rat LC50 >5.28 mg/L/4 hr, Dermal rabbit LD50 >2000 mg/kg

Proprietary Additive: Oral rat LD50 3200 mg/kg; Dermal rabbit LD50 5000 mg/kg

Diisobutyl Ketone: Oral rat LD50 5233 mg/kg; Dermal rat LD50 > 2000 mg/kg; Inhalation rat LC50 14.5 mg/L/4 hr.

Aliphatic Alcohol #1: Oral rat LD50 3002 mg/kg; Dermal rat LD50 > 1875 mg/kg; Inhalation rat LC50 > 7.6 mg/L/4 hr.

Aliphatic Alcohol #2: Oral rat LD50 > 2830 mg/kg; Inhalation rat LC50 24.6 mg/L/4 hr; Dermal rabbit LD50 > 2000 mg/kg

Carbon Dioxide: Inhalation rat LC50 167857 ppm/4 hr

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: No toxicity data available for the product.

LVP Aliphatic Hydrocarbon: 96 hr. LC50 Pimephales promelas > 100 mg/L; 48 hr. EC50 daphnia magna > 1000 mg/L; 72 hr.

EC50 Pseudokirchnerella subcapitata > 100 mg/L

Severely Hydrotreated Petroleum Distillates: 96 hr LL50 Oncorhynchus mykiss 2.5 mg/kg, 48 hr EL50 daphnia magna 1.4 mg/L, 72 hr

EL50 Pseudokirchnerella subcapitata 1.3 mg/L

Proprietary Ingredient: 48 hr. LC50 daphnia magna 17-28 mg/L

Diisobutyl Ketone: 96 hr. LC50 Oncorhynchus mykiss 30 mg/L; 48 hr. EC50 daphnia magna 37.2 mg/L, 72 hr.

Aliphatic Alcohol #1: 96 hr. LC50 Oryzias latipes > 100 mg/L; 48 hr. EC50 daphnia magna > 1000 mg/L; 72 hr. EC50 Pseudokirchnerella subcapitata > 1000 mg/L

Aliphatic Alcohol #2: 96 hr LC50 Pimephales promelas 1430 mg/L; 48 hr EC50 daphnia pulex 1100 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata 1799 mg/L

Carbon Dioxide: 96 hr LC50 Oncorhynchus mykiss 35 mg/L

PERSISTENCE AND DEGRADABILITY: Aliphatic Alcohol #1 and Aliphatic Alcohol #2 are readily biodegradable.

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: None known

SECTION 13: DISPOSAL INFORMATION

DISPOSAL INSTRUCTIONS: Dispose of product in accordance with all local, state/provincial and federal regulations.

Do not puncture or incinerate.

CONTAMINATED PACKAGING: Offer empty packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

| | UN NUMBER | PROPER SHIPPING NAME | HAZARD CLASS | PACKING GROUP | ENVIRONMENTAL HAZARD |
|----------------------------|-----------|---------------------------------------|--------------|---------------|----------------------|
| DOT / 49 CFR GROUND | | Limited Quantity | | | |
| DOT AIR | UN1950 | Aerosols, Flammable, Limited Quantity | 2.1 | None | None |
| IMDG | UN1950 | Aerosols, Limited Quantity | 2.1 | None | None |
| IATA | UN1950 | Aerosols, Flammable, Limited Quantity | 2.1 | None | None |

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable - product is transported only in packaged form.

Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:


CERCLA 103 Reportable Quantity: This product has a Reportable Quantity (RQ) of 166,666 lbs. (based on the RQ for Aliphatic alcohol #2 of 5,000 lbs present at 3%) maximum. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

STATE REPORTING REGULATIONS:

Massachusetts Right To Know: Diacetone Alcohol 123-42-2, Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9

New Jersey Right To Know: Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9, Pine Oil 8002-09-3

Pennsylvania Right To Know: Diacetone Alcohol 123-42-2, Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9

California Proposition 65:  **WARNING:** This product can expose you to chemicals including beta-myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

SARA TITLE III:

Hazard Category for Section 311/312: Refer to Section 2 for the OSHA Hazard Classification

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None.

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

Canadian DSL: All of the components of this product are listed on the Canadian Domestic Substances List

SECTION 16: OTHER INFORMATION

HMIS RATINGS: Health - 2 Flammability - 4 Physical Hazard - 0

NFPA RATINGS: Health - 1 Flammability - 2 Instability - 0

SDS REVISION HISTORY: Updated formulation - Section 15

DATE OF PREPARATION: November 20, 2020

DATE OF LAST REVISION: July 01, 2020

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or the consequences of its use or misuse.

11/10/2020

AEROKROIL

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------|--|
| Product Name: | AEROKROIL |
| Product Use: | Penetrant/Lubricant for Industrial Use |
| Manufacturer: | Kano Laboratories, Inc., 1000 E. Thompson Lane Nashville, TN 37211 |
| Emergency Phone Number: | Chemtrec 1 (800) 424-9300 |
| Manufacturer Phone Number: | 615-833-4101 |
| Website: | www.kroil.com |
| SDS Date of Preparation: | November 10, 2020 |

SECTION 2: HAZARDS IDENTIFICATION

GHS / HAZCOM 2012 Classification:

| HEALTH | PHYSICAL |
|---|--|
| Skin Irritation Category 2 Eye Irritation Category 2A Aspiration Hazard Category 1 Skin Sensitization Category 1 | Flammable Aerosol Category 2 Gas Under Pressure: Compressed Gas |

Label Elements

DANGER!

Flammable aerosol.

Contains gas under pressure: may explode if heated. Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Do not spray on an open flame or other ignition source.

Pressurized container. Do not pierce or burn, even after use.

Wash thoroughly after handling.

Contaminated clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection.

IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical attention.

In case of fire: Use carbon dioxide, dry chemical or foam to extinguish. Protect from sunlight.

Do not expose to temperatures exceeding 50°C/122°F.

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS# | % |
|---|--------------------------|--------|
| Severely Hydrotreated Petroleum Distillates | 64742-52-5 64742-53-6 | 30-50 |
| LVP Aliphatic Hydrocarbon | 64742-47-8 | 20-40 |
| Proprietary Additive | Proprietary | 5-15 |
| Diisobutyl Ketone | 108-83-8 | 5-15 |
| Aliphatic Alcohol #1 | 123-42-2 | 1 - <3 |
| Aliphatic Alcohol #2 | 78-83-1 | 1 - <3 |
| Carbon Dioxide Propellant | 124-38-9 | 1-5 |

The exact percentage has been withheld as a trade secret or is a variation in formula.

SECTION 4: FIRST AID MEASURES

EYE: Rinse thoroughly with water for several holding the eye lids open to be sure the material is washed out. Get medical attention if irritation develops or persists.

SKIN: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use.

INHALATION: Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if symptoms develop.

INGESTION: DO NOT induce vomiting. Keep the victim calm and warm. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE AND DELAYED: May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, nausea and vomiting. Harmful or fatal if swallowed. Aspiration into the lungs during ingestion or vomiting may cause lung damage. May cause an allergic skin reaction.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: If swallowed, get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical or foam. Water may be ineffective but can be used to cool containers and structures.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Contents under pressure. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 120oF may cause cans to burst. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

Never use welding or cutting torch on or near containers (even empty) because product can ignite explosively. Combustion products may be hazardous: Oxides of carbon, organic compounds, smoke and fumes.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Protect against bursting cans.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Ventilate the area with explosion-proof equipment.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Report spills and releases as required to appropriate authorities.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Place leaking can in a pail or pan in a well-ventilated area until the pressure has been released. Cover liquid with an inert absorbent material and collect into an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash exposed skin thoroughly with soap and water after use. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Do not cut, braze, solder, grind or weld on or near containers. Contents under pressure. Do not puncture or incinerate container.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a cool, well ventilated area at temperatures below 120°F. Do not store in direct sunlight. Store as a Level 3 aerosol.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| CHEMICAL NAME | EXPOSURE LIMITS |
|---|--|
| Severely Hydrotreated Petroleum Distillates (as mineral oil) | 5 mg/m ³ TWA OSHA PEL (as oil mist) 5 mg/m ³ TWA ACGIH TLV (inhalable fraction) |
| LVP Aliphatic Hydrocarbon | 166 ppm TWA Manufacturer Recommended (vapor) |
| Proprietary Additive | None Established |
| Diisobutyl Ketone | 50 ppm TWA OSHA PEL 25 ppm TWA ACGIH TLV |
| Aliphatic Alcohol #1 | 50 ppm OSHA TWA PEL 50 ppm TWA ACGIH TLV |
| Aliphatic Alcohol #2 | 100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV |
| Carbon Dioxide Propellant | 5000 ppm TWA OSHA PEL 5000 ppm TWA ACGIH TLV 30000 ppm STEL ACGIH TLV |

APPROPRIATE ENGINEERING CONTROLS: Use with adequate general or local exhaust ventilation to maintain concentrations below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: If the exposure limits listed above are exceeded, a NIOSH approved respirator with organic vapor cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

HAND PROTECTION: Impervious gloves are recommended when needed to avoid skin contact.

EYE PROTECTION: Chemical safety goggles recommended.

SKIN PROTECTION: Impervious clothing as required to prevent skin contact and contamination of personal clothing.

HYGIENE MEASURES: Suitable eye wash and washing facilities should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--|----------------------------------|---|
| Appearance: | Slightly reddish liquid packaged as an aerosol | Odor: | Solvent |
| Odor Threshold: | Not available | pH: | Not available |
| Melting/Freezing Point: | Not available | Boiling Point/Range: | Not available |
| Flash Point: | 132°F (55.5°C) TOC | Evaporation Rate: | Not available |
| Flammability: (Solid, Gas) | Not applicable | Flammability Limits: | 10.9% (aliphatic alcohol #2) LEL: 0.7% (petroleum distillates) |
| Vapor Pressure: | Not available | Vapor Density: | Not available |
| Relative Density: | 0.8596 | Solubilities: | Negligible in Water |
| Partition Coefficient: (N-Octanol/Water) | Not available | Autoignition Temperature: | Not available |
| Decomposition Temperature: | Not available | Viscosity: | Not available |

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: None known.

CHEMICAL STABILITY: Stable under normal conditions of storage or use.

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Avoid heat, sparks, flames and all other sources of ignition.

INCOMPATIBLE MATERIALS: Avoid strong oxidizing agents, reducing agents, acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce oxides of carbon, acetone, acrid fumes and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

EYE: May cause eye irritation with redness, tearing and stinging.

SKIN: May cause irritation with redness, rash, swelling. Prolonged or repeated contact may result in defatting and dermatitis. Repeated skin contact may cause sensitization (allergic skin reaction) in some individuals.

INHALATION: Inhalation of vapors or mists may cause mucous membrane and upper respiratory tract irritation and central nervous system depression. Symptoms may include coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea, fatigue and unconsciousness.

INGESTION: Ingestion is an unlikely route of exposure for aerosol products. Swallowing may cause gastrointestinal irritation with abdominal pain, nausea, vomiting and diarrhea and central nervous system depression with symptoms including headache, dizziness, intoxication, weakness, nausea, and vomiting. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

CHRONIC HAZARDS: Aliphatic Alcohol #1 is suspected of damaging fertility or the unborn child.

CARCINOGEN STATUS: None of the components of this product at greater than 0.1% are listed as carcinogens by OSHA, IARC or NTP.

ACUTE TOXICITY: Toxicological testing has not been performed on this product as a mixture.

LVP Aliphatic Hydrocarbon: Oral rat LD50 > 5000 mg/kg; Dermal rat LD50 > 5000 mg/kg; Inhalation rat LC50 > 2.18 mg/L/4 hr.

Severely Hydrotreated Petroleum Distillates: Oral rat LD50 >5000 mg/kg, Inhalation rat LC50 >5.28 mg/L/4 hr, Dermal rabbit LD50 >2000 mg/kg

Proprietary Additive: Oral rat LD50 3200 mg/kg; Dermal rabbit LD50 5000 mg/kg

Diisobutyl Ketone: Oral rat LD50 5233 mg/kg; Dermal rat LD50 > 2000 mg/kg; Inhalation rat LC50 14.5 mg/L/4 hr.

Aliphatic Alcohol #1: Oral rat LD50 3002 mg/kg; Dermal rat LD50 > 1875 mg/kg; Inhalation rat LC50 > 7.6 mg/L/4 hr.

Aliphatic Alcohol #2: Oral rat LD50 > 2830 mg/kg; Inhalation rat LC50 24.6 mg/L/4 hr; Dermal rabbit LD50 > 2000 mg/kg

Carbon Dioxide: Inhalation rat LC50 167857 ppm/4 hr

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: No toxicity data available for the product.

LVP Aliphatic Hydrocarbon: 96 hr. LC50 Pimephales promelas > 100 mg/L; 48 hr. EC50 daphnia magna >1000 mg/L; 72 hr.

EC50 Pseudokirchnerella subcapitata > 100 mg/L

Severely Hydrotreated Petroleum Distillates: 96 hr LL50 Oncorhynchus mykiss 2.5 mg/kg, 48 hr EL50 daphnia magna 1.4 mg/L, 72 hr

EL50 Pseudokirchnerella subcapitata 1.3 mg/L

Proprietary Ingredient: 48 hr. LC50 daphnia magna 17-28 mg/L

Diisobutyl Ketone: 96 hr. LC50 Oncorhynchus mykiss 30 mg/L; 48 hr. EC50 daphnia magna 37.2 mg/L, 72 hr.

Aliphatic Alcohol #1: 96 hr. LC50 Oryzias latipes >100 mg/L; 48 hr. EC50 daphnia magna >1000 mg/L; 72 hr. EC50 Pseudokirchnerella subcapitata >1000 mg/L

Aliphatic Alcohol #2: 96 hr LC50 Pimephales promelas 1430 mg/L; 48 hr EC50 daphnia pulex 1100 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata 1799 mg/L

Carbon Dioxide: 96 hr LC50 Oncorhynchus mykiss 35 mg/L

PERSISTENCE AND DEGRADABILITY: Aliphatic Alcohol #1 and Aliphatic Alcohol #2 are readily biodegradable.

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: None known

SECTION 13: DISPOSAL INFORMATION

DISPOSAL INSTRUCTIONS: Dispose of product in accordance with all local, state/provincial and federal regulations.

Do not puncture or incinerate.

CONTAMINATED PACKAGING: Offer empty packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

| | UN NUMBER | PROPER SHIPPING NAME | HAZARD CLASS | PACKING GROUP | ENVIRONMENTAL HAZARD |
|----------------------------|-----------|---------------------------------------|--------------|---------------|----------------------|
| DOT / 49 CFR GROUND | | Limited Quantity | | | |
| DOT AIR | UN1950 | Aerosols, Flammable, Limited Quantity | 2.1 | None | None |
| IMDG | UN1950 | Aerosols, Limited Quantity | 2.1 | None | None |
| IATA | UN1950 | Aerosols, Flammable, Limited Quantity | 2.1 | None | None |

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable - product is transported only in packaged form.

Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:


CERCLA 103 Reportable Quantity: This product has a Reportable Quantity (RQ) of 166,666 lbs. (based on the RQ for Aliphatic alcohol #2 of 5,000 lbs present at 3%) maximum. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

STATE REPORTING REGULATIONS:

Massachusetts Right To Know: Diacetone Alcohol 123-42-2, Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9

New Jersey Right To Know: Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9, Pine Oil 8002-09-3

Pennsylvania Right To Know: Diacetone Alcohol 123-42-2, Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9

California Proposition 65:  **WARNING:** This product can expose you to chemicals including beta-myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

SARA TITLE III:

Hazard Category for Section 311/312: Refer to Section 2 for the OSHA Hazard Classification

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None.

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

Canadian DSL: All of the components of this product are listed on the Canadian Domestic Substances List

SECTION 16: OTHER INFORMATION

HMIS RATINGS: Health - 2 Flammability - 4 Physical Hazard - 0

NFPA RATINGS: Health - 1 Flammability - 2 Instability - 0

SDS REVISION HISTORY: Updated formulation - Section 15

DATE OF PREPARATION: November 20, 2020

DATE OF LAST REVISION: July 01, 2020

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or the consequences of its use or misuse.

Safety Data Sheet

Anchorlube G-771

8/26/2018

SECTION 1: IDENTIFICATION

Product Name: ANCHORLUBE G-771

Manufacturer: Anchor Chemical Company
777 Canterbury Road
Westlake, OH 44145

Information Phone Number: (440) 871-1660

Fax: (440) 871-0665

Emergency Phone Number: (440) 871-1660

Product Use: Metalworking lubricant/coolant for cutting metals

Restriction on Use: None known

SDS Date of Preparation: 8/26/2018

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom-2012):

| Physical | Health |
|---------------|---------------|
| Not Hazardous | Not Hazardous |

Labeling Elements:

None required

Hazard statement(s)
None

Precautionary statement(s)
None

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|---------------------------|-------------|------|
| Non-hazardous Ingredients | Proprietary | 100% |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

Safety Data Sheet

Anchorlube G-771

8/26/2018

Most Important symptoms and effects, both acute and delayed: May cause slight eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use media that is suitable for the surrounding fire.

Special Hazards Arising from the Chemical: This product is not classified as combustible. Thermal decomposition may yield oxides of carbon and unidentified compounds.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Avoid inhalation of vapor or mist. Do not transfer to unlabeled containers.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature away from extreme heat and open flames.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|---------------------------|------------------|
| Non-hazardous Ingredients | None Established |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to minimize exposure levels. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where exposures are excessive, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: If skin irritation occurs, impervious gloves such as rubber or nitrile recommended where needed to avoid skin contact

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

Safety Data Sheet

Anchorlube G-771

8/26/2018

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: Green semi paste | Vapor Density (air = 1): Not available |
| Odor: Slight almond odor | Specific Gravity: 1.0365 |
| Odor Threshold: Not established | Water Solubility: Dispersable |
| pH: 6.0-6.5 | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: 0°C (32°F) | Autoignition Temperature: N/A |
| Boiling Point: 107.22° (225°F) | Decomposition Temperature: Not available |
| Flash Point: N/A | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: Not explosive |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: Not established | Flammability (solid, gas): N/A |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Extreme heat and freezing.

Incompatible Materials: Avoid magnesium as this product is water based.

Hazardous Decomposition Products: Thermal decomposition may yield oxides of carbon and other unidentified compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause irritation and drying of the skin.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged skin contact may cause an allergic reaction.

Carcinogen Status: None of the other components of this product are listed as carcinogens by OSHA, IARC, NTP, or the EU CLP.

Acute Toxicity Values:

No data available. Components are not acutely toxic.

Safety Data Sheet

Anchorlube G-771

8/26/2018

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

No data available. This product is not expected to be harmful to the environment

Persistence and Degradability: Product is degradable. Unsealed will begin to degrade rapidly. Shelf life is three years if stored capped at room temperature.

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not hazardous

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: None.

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: No listed chemicals.

This product is not hazardous in accordance with OSHA HAZCOM 2012, GHS and WHMIS 2015.

Safety Data Sheet

Anchorlube G-771

8/26/2018

| |
|--------------------------------------|
| SECTION 16: OTHER INFORMATION |
|--------------------------------------|

Revision Summary: New format to comply with OSHA Hazcom 2012

SDS Date of Preparation/Revision: 5/6/2015

Disclaimer: Information contained herein is presented in good faith and is based on data believed to be accurate. However no warranty is expressed or implied regarding this information or the results obtained from the use of this Safety Data Sheet, whether it originates with Anchor Chemical name or others. This Safety Data Sheet relates only to the specific material designated herein. It does not relate to use with other material or processes. This information is supplied with the condition that the user will make appropriate determination as to its suitability for their purpose prior to using it.

Safety Data Sheet

Anchorlube G-771

SDS No. 771.14

Revision: 1/05/15

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Anchorlube G-771

Synonyms: N/A

General Use: Metalworking lubricant/coolant for cutting metals

Manufacturer: Anchor Chemical Company
777 Canterbury Road
Westlake, OH 44145
Phone (440) 871-1660, Fax (440) 871-1601

Emergency Phone: (440) 871-1660

Date Revised: 1/5/15

Preparer: Sam Firth

Section 2 - Hazards Identification

Hazard Pictogram:



Hazard Statements: None

Precautionary Statements:

P280: Wear eye protection.

P305+351+338: IF IN EYES: Rinse continuously with water. Remove contact lenses if present and easy to do-continue rinsing.

P302+352: IF ON SKIN: Wash with soap and water.

HMIS

H 1

F 0

R 0

PPE A

Section 3 - Composition / Information on Ingredients

Non-hazardous material.

The following components, present at a concentration $\geq 0.1\%$ are listed as carcinogens or potential carcinogens by either the National Toxicology Program (NTP), The International Agency for Research on Cancer (IARC) or OSHA:

None – Not Applicable

Section 4 - First Aid Measures

Inhalation: This would be extremely rare. Smoke from welding parts with residue may irritate throat. If any affects are felt dilute with water. If discomfort is noticed beyond 15 minutes, seek medical advice.

Eye Contact: Flush eyes thoroughly for several minutes taking care to rinse under eyelids. Do not scrub. Abrasion may cause irritation. If discomfort continues, continue to wash with water. If irritation persists, consult a physician.

Skin Contact: An individual predisposed to irritation caused by animal fats based soaps may experience mild skin irritation. Wash skin with soap and water. Consult a physician if irritation persists.

Ingestion: If swallowed, it may cause nausea due to soap base. Dilute with water. IF nausea continues, seek medical advice.

Most important symptoms and effects, both acute and delayed: None

Indication of any immediate medical attention and special treatment needed: None

Section 5 - Fire-Fighting Measures

Flammability Classification: Non-combustible

Extinguishing Media: Use extinguishing measures appropriate to the surrounding fire.

Unusual Fire or Explosion Hazards: None known.

Hazardous Combustion Products: None.

Fire-Fighting Instructions: None

Section 6 - Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: N/A

Methods and materials for containment and cleaning up: Cover with inert, absorbent material and remove to disposal container. Spill area may be slippery. Flush with water.

Regulatory Requirements: N/A

Section 7 - Handling and Storage

Handling Precautions: Material freezes and some separation may occur. Freezing will not affect capability of material to perform. Once thawed, stir material until smooth.

Storage Requirements: Store at room temperature (40-100 degrees f).

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Protective Clothing/Equipment: Wear tightly fitting safety goggles or safety glasses.

Contaminated Equipment: Clean equipment with water. Contaminated clothing may be washed with regular street clothes.

Comments: Treat this product as you would other animal fat based soaps. Easily cleaned with soapy water and comes of clothing as simple as other soaps.

Section 9 - Physical and Chemical Properties

Physical State: Semi Paste

Appearance and Odor: Green Semi Paste with slight almond odor

Odor Threshold: n/e

Vapor Pressure: n/a

Vapor Density (Air=1): n/d

Formula Weight: n/a

Density: 8.51 Lb/Gal

Specific Gravity (H₂O=1, at 4 °C): 1.0365

pH: 6.0-6.5

Flash Point: >

Flash Point Method: Not flammable.

Burning Rate: Does not burn.

Auto-ignition Temperature: Does not ignite.

Explosive properties: Non-explosive.

Water Solubility: Dispersible

Boiling Point: F: 225 C: 107.22

Freezing/Melting Point: 0 C/32 C

Refractive Index: n/a

Surface Tension: n/a

% Volatile: n/a

Evaporation Rate: n/a

Section 10 - Stability and Reactivity

Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Avoid Magnesium as it is water based.

Reactivity with Heat: When exposed to fire or heat, Anchorlube loses its water and dries out leaving a waxy film.

Hazardous Decomposition Products: None known.

Section 11- Toxicological Information

Toxicity Data:*

Eye: May cause irritation.

Skin: May cause irritation.

Ingestion: Unlikely.

Acute Oral Effects: None known.

Chronic Effects: None known.

Carcinogenicity: Neither this product nor any of its components are considered carcinogenic by OSHA, IARC, NTP, or ACGIH.

Contains no oil, silicone, sulfur, chlorine or vocs.

Section 12 - Ecological Information

Not known.

Persistence and degradability: Product is biodegradable. Sealed shelf life is a minimum of two years. Unsealed will begin to degrade rapidly.

Bioaccumulative potential: Not applicable

Mobility in soil: Not applicable.

Section 13 - Disposal Considerations

Disposal: This substance is inert and does not require special disposal methods. Small amounts may be flushed into sanitary sewer. Large amounts follow applicable Federal, state, and local regulations.

Section 14 - Transport Information

DOT Transportation Data: This product is not classified as dangerous under the transport regulations for road, rail, sea, or air transport.

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: (40 CFR 261.33): Not listed

RCRA Hazardous Waste Classification (40 CFR 261): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) Not listed

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29CFR 1910): Not Listed

All ingredients in this product are listed on the TSCA inventory or are not required to be listed on the TSCA inventory.

International Regulations:

Regulation (EC) No 2037/2000 (Ozone Depleting Substances): Not applicable

Regulation (EC) No 850/2004 (Persistent Organic Pollutants): Not applicable

Regulation (EC) No 689/2008 (Export and Import of Dangerous Substances): Not applicable

Directive 2002/95/EC (RoHS): Not applicable

Directive 2002/96/EC (WEEE): Not applicable

Directive 1999/13/EC (VOC): Not applicable

Restriictions according to TITLE VIII of the Regulation (EC) No 1907/2006 (REACH): None

S-phrases:

S39: Wear eye protection.

RoHS: Not applicable

Section 16 - Other Information

Prepared By: Sam Firth

Revision Notes: Updated to GHS

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Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name ANSUL ABC Multipurpose Dry Chemical Agent - Stored Pressure System

1. Identification

1.1. Product Identifier

Product name ANSUL ABC Multipurpose Dry Chemical Agent - Stored Pressure System

1.2. Other means of identification

Product code 435028
UN/ID no UN1044
Synonyms None
Chemical Family No information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use No information available.
Uses advised against Consumer use.

1.4. Details of the Supplier of the Safety Data Sheet

Company Name Tyco Fire Protection Products
One Stanton Street
Marinette, WI 54143-2542
Telephone: 715-735-7411
Contact point Product Stewardship at 1-715-735-7411
E-mail address psra@tycofp.com

1.5. Emergency Telephone Number

Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

2. Hazards Identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Simple asphyxiants
Gases Under Pressure - Compressed Gas

2.2. Label Elements

Signal Word

WARNING

Hazard Statements

May displace oxygen and cause rapid suffocation
Contains gas under pressure; may explode if heated





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/ Product name ANSUL ABC /
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Precautionary Statements

Storage

Protect from sunlight. Store in a well-ventilated place.

2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

2.4. Other Information

3. Composition/information on Ingredients

3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

| Chemical name | CAS No. | weight-% |
|-------------------|------------|----------|
| Attapulgate | 12174-11-7 | 1 - 5 |
| Calcium carbonate | 471-34-1 | 1 - 5 |

4. First aid measures

4.1. Description of first aid measures

General Advice

Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin contact

In case of contact with liquefied gas, thaw frosted parts with lukewarm water.

Inhalation

Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult.

Ingestion

If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms

None known.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians

Keep victim warm and quiet.

5. Fire-fighting measures

5.1. Suitable Extinguishing Media

Use extinguishing agent suitable for type of surrounding fire. Dry chemical or CO2. Water spray, fog or regular foam.



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5.2. Unsuitable Extinguishing Media

None.

5.3. Specific Hazards Arising from the Chemical

Ruptured cylinders may rocket. Some may burn but none ignite readily.

5.4. Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

5.5. Protective Equipment and Precautions for Firefighters

Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions Do not touch or walk through spilled material. Stop leak if you can do it without risk.

OTHER INFORMATION Ventilate the area.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental Precautions

Environmental Precautions Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate.

Methods for Cleaning Up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

7. Handling and Storage

7.1. Precautions for Safe Handling

Advice on safe handling Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Use personal protective equipment as required. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store in a well-ventilated place. Keep cool. Keep container tightly closed. Guard against dust accumulation of material. Use care in handling/storage. Pressurized extinguishers



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should be properly stored and secured to prevent falling or being knocked over.

Incompatible Materials Strong acids.

8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL |
|-------------------------------|---|----------|---|------------|
| Attapulgit 12174-11-7 | TWA: 1 mg/m ³ respirable particulate matter | - | - | - |
| Calcium carbonate 471-34-1 | - | - | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust | - |

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor): NIOSH IDLH Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection No special precautions are needed in handling this material.

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment.

Ventilation Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

| | | | |
|-----------------------|-------------------|--------------|--------|
| Physical State | powder | Color | Yellow |
| Odor | odorless | | |
| Odor Threshold | No data available | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-------------------------------|-------------------|-------------------------|
| pH | No data available | |
| Melting point/freezing point | No data available | |
| Boiling point / boiling range | No data available | |
| Flash Point | No data available | |
| Evaporation Rate | No data available | |
| Flammability (solid, gas) | No data available | |
| Flammability limit in air | | |
| Upper flammability limit: | No data available | |
| Lower flammability limit: | No data available | |



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| | |
|------------------------------|-------------------|
| Vapor Pressure | No data available |
| Vapor Density | No data available |
| Specific gravity | No data available |
| Water Solubility | No data available |
| Solubility in Other Solvents | No data available |
| Partition coefficient | No data available |
| Autoignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Kinematic viscosity | No data available |

10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

| | |
|---------------------------------|--|
| Hazardous Polymerization | Hazardous polymerization does not occur. |
|---------------------------------|--|

10.4. Conditions to Avoid

None known based on information supplied.

10.5. Incompatible Materials

Strong acids.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NO_x).

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

| | |
|---------------------|---|
| Inhalation | May cause irritation of respiratory tract. |
| Eye Contact | May cause irritation. |
| Skin contact | May cause irritation. |
| Ingestion | Ingestion may cause irritation to mucous membranes. |

Component Information

Acute Toxicity



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| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------------|----------------------|-------------|-----------------|
| Calcium carbonate 471-34-1 | = 6450 mg/kg (Rat) | - | - |

11.2. Information on Toxicological Effects

Symptoms No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Attapulgite (palygorskite fibers) is a hydrated magnesium aluminum silicate. Long palygorskite (attapulgite) fibers (>5 micrometers) are possibly carcinogenic to humans (Group 2B). Short palygorskite (attapulgite) fibers (<5 micrometers) cannot be classified as to their carcinogenicity to humans (Group 3). The attapulgite present in this product contains fibers 0.5-2.5 um range, so would be considered by IARC as Group 3. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---------------------------|-------|---------|-----|------|
| Attapulgite 12174-11-7 | - | Group 3 | - | X |

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity No information available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Target organ effects Eyes, Respiratory System, Skin.
Aspiration Hazard No information available.

11.4. Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal) 8156 mg/kg

12. Ecological Information

12.1. Ecotoxicity

Not classified.

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|--|-----------------------|--|---|
| Ammonium sulfate, technical 7783-20-2 | - | LC50 96 h 460 - 1000 mg/L Leuciscus idus static; LC50 96 h 123 - 128 mg/L Poecilia reticulata semi-static; LC50 96 h = 126 mg/L Poecilia reticulata; LC50 96 h > 100 mg/L Pimephales promelas; LC50 96 h 32.2 - 41.9 mg/L Oncorhynchus mykiss flow-through; LC50 96 h 5.2 - 8.2 mg/L Oncorhynchus mykiss static; LC50 96 h = 18 mg/L Cyprinus carpio; LC50 96 h = 480 mg/L Brachydanio rerio flow-through; LC50 96 h = 420 mg/L Brachydanio rerio semi-static; LC50 96 h = 250 mg/L Brachydanio rerio | LC50 48 h = 14 mg/L Daphnia magna; EC50 24 h = 423 mg/L Daphnia magna |
| Silicic Acid/silica gel, Amorphous | EC50 (72h) = 440 mg/L | LC50 (96h) static = 5000 mg/L | EC50 (48h) = 7600 mg/L |



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| | | | |
|-----------|---------------------------------|-------------------|--------------------|
| 7631-86-9 | Pseudokirchneriella subcapitata | Brachydanio rerio | Ceriodaphnia dubia |
|-----------|---------------------------------|-------------------|--------------------|

12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Other Adverse Effects

No information available

13. Disposal Considerations

13.1. Waste Treatment Methods

Disposal of wastes

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not reuse container. Pressurized container: Do not pierce or burn, even after use.

14. Transport Information

DOT

| | |
|---------------------------------|---------------------------------|
| UN/ID no | UN1044 |
| Proper Shipping Name | Fire extinguishers |
| Description | UN1044, Fire extinguishers, 2.2 |
| Hazard class | 2.2 |
| Special Provisions | 18, 110 |
| Emergency Response Guide Number | 126 |

TDG

| | |
|----------------------|---------------------------------|
| UN/ID no | UN1044 |
| Description | UN1044, Fire extinguishers, 2.2 |
| Proper Shipping Name | Fire extinguishers |
| Hazard class | 2.2 |

MEX

| | |
|----------------------|---------------------------------|
| UN/ID no | UN1044 |
| Description | UN1044, Fire extinguishers, 2.2 |
| Proper Shipping Name | Fire extinguishers |
| Hazard class | 2.2 |

ICAO (air)

| | |
|-------------|---------------------------------|
| UN/ID no | UN1044 |
| Description | UN1044, Fire extinguishers, 2.2 |



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Proper Shipping Name Fire extinguishers
Hazard class 2.2
Special Provisions A19

IATA

UN/ID no UN1044
Description UN1044, Fire extinguishers, 2.2
Proper Shipping Name Fire extinguishers
Hazard class 2.2
ERG Code 2L
Special Provisions A19

IMDG

UN/ID no UN1044
Description UN1044, Fire extinguishers, 2.2
Proper Shipping Name Fire extinguishers
Hazard class 2.2
EmS-No F-C, S-V
Special Provisions 225

15. Regulatory Information

15.1. International Inventories

TSCA Complies
DSL/NDSL Complies
ENCS Does not comply
IECSC Complies
KECL Does not comply
PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | SARA 313 - Threshold Values % |
|---|-------------------------------|
| Ammonium dihydrogen phosphate - 7722-76-1 | 1.0 |
| Ammonium sulfate, technical - 7783-20-2 | 1.0 |

SARA 311/312 Hazard Categories

Acute Health Hazard No
Chronic health hazard No
Fire Hazard No
Sudden Release of Pressure Hazard Yes
Reactive Hazard No



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CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical name | California Proposition 65 |
|--------------------------|---------------------------|
| Attapulgite - 12174-11-7 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Silicic Acid/silica gel, Amorphous 7631-86-9 | - | X | X |
| Magnesium carbonate 546-93-0 | X | X | - |

16. Other information, including date of preparation of the last revision

| | | | | |
|-------------|------------------|----------------|--------------------|------------------------------------|
| NFPA | Health Hazards 0 | Flammability 0 | Instability 0 | Physical and chemical properties - |
| HMIS | Health Hazards 0 | Flammability 0 | Physical Hazards 3 | Personal Protection X |

Revision date 13-Feb-2019

Revision note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet


SAFETY DATA SHEET

Argon

Section 1. Identification

| | |
|--------------------------------------|---|
| GHS product identifier | : Argon |
| Chemical name | : Argon |
| Other means of identification | : Argon-40; Argon, isotope of mass 40; 40Ar; ARGON; Argon,Welding Quality; ARGON, COMPRESSED |
| Product type | : Gas. |
| Product use | : Synthetic/Analytical chemistry. |
| Synonym | : Argon-40; Argon, isotope of mass 40; 40Ar; ARGON; Argon,Welding Quality; ARGON, COMPRESSED |
| SDS # | : 001004 |
| Supplier's details | : Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253 |
| 24-hour telephone | : 1-866-734-3438 |

Section 2. Hazards identification

| | |
|---|--|
| OSHA/HCS status | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| Classification of the substance or mixture | : GASES UNDER PRESSURE - Compressed gas SIMPLE ASPHYXIANTS |
| GHS label elements | |
| Hazard pictograms | :  |
| Signal word | : Warning |
| Hazard statements | : Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation. |
| Precautionary statements | |
| General | : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. |
| Prevention | : Not applicable. |
| Response | : Not applicable. |
| Storage | : Protect from sunlight. Store in a well-ventilated place. |
| Disposal | : Not applicable. |
| Supplemental label elements | : Keep container tightly closed. Use only with adequate ventilation. Do not enter storage areas and confined spaces unless adequately ventilated. |
| Hazards not otherwise classified | : In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation. |

Section 3. Composition/information on ingredients

| | |
|--------------------------------------|--|
| Substance/mixture | : Substance |
| Chemical name | : Argon |
| Other means of identification | : Argon-40; Argon, isotope of mass 40; 40Ar; ARGON; Argon,Welding Quality; ARGON, COMPRESSED |
| Product code | : 001004 |

CAS number/other identifiers

CAS number : 7440-37-1

| Ingredient name | % | CAS number |
|-----------------|-----|------------|
| Argon | 100 | 7440-37-1 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : As this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Inhalation** : No known significant effects or critical hazards. Acts as a simple asphyxiant.
- Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Frostbite** : Try to warm up the frozen tissues and seek medical attention.
- Ingestion** : As this product is a gas, refer to the inhalation section.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Immediately contact emergency personnel. Stop leak if without risk.
- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|---|
| Argon | ACGIH TLV (United States, 3/2017). Oxygen Depletion [Asphyxiant]. |

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : The gas can cause asphyxiation without warning by replacing the oxygen in the air. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. If operating conditions cause high gas concentrations to be produced or any recommended or statutory exposure limit is exceeded, use an air-fed respirator or self-contained breathing apparatus. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas.
- Color** : Colorless.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -189.2°C (-308.6°F)
- Boiling point** : -185.9°C (-302.6°F)
- Critical temperature** : -122.4°C (-188.3°F)
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : 1.66 (Air = 1)
- Specific Volume (ft³/lb)** : 9.7087
- Gas Density (lb/ft³)** : 0.103
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : 0.74
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Molecular weight** : 39.95 g/mole

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Do not allow gas to accumulate in low or confined areas.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Inhalation** : No known significant effects or critical hazards. Acts as a simple asphyxiant.
- Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.

Section 11. Toxicological information

Ingestion : As this product is a gas, refer to the inhalation section.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Argon | 0.74 | - | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT | TDG | Mexico | IMDG | IATA |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1006 | UN1006 | UN1006 | UN1006 | UN1006 |
| UN proper shipping name | ARGON, COMPRESSED | ARGON, COMPRESSED | ARGON, COMPRESSED | ARGON, COMPRESSED | ARGON, COMPRESSED |
| Transport hazard class(es) | 2.2  | 2.2  | 2.2  | 2.2  | 2.2  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |

“Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product.”

Additional information

DOT Classification : Limited quantity
No

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 0.125
Passenger Carrying Road or Rail Index 75
Special provisions 42

IATA : Quantity limitation No

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Section 15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

New York : This material is not listed.

New Jersey : This material is listed.

Pennsylvania : This material is listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : This material is listed or exempted.

Canada : This material is listed or exempted.

China : This material is listed or exempted.

Europe : This material is listed or exempted.

Japan : **Japan inventory (ENCS):** Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : This material is listed or exempted.

Philippines : This material is listed or exempted.

Republic of Korea : This material is listed or exempted.

Taiwan : This material is listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : This material is listed or exempted.

Viet Nam : Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | / | 0 |
| Flammability | | 0 |
| Physical hazards | | 3 |
| | | |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

| Classification | Justification |
|---------------------------------------|-----------------|
| GASES UNDER PRESSURE - Compressed gas | Expert judgment |
| SIMPLE ASPHYXIANTS | Expert judgment |

History

Date of printing : 1/5/2021

Date of issue/Date of revision : 1/5/2021

Date of previous issue : 8/25/2020

Version : 1.05

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

References : Not available.

Notice to reader

Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Safety Data Sheet

The Armor All/STP Products Company

44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: Armor All ® Cleaning Wipes

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900

Emergency Phone Number:

For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for
Outside US and Canada (call collect)

SDS Date of Preparation: 01/19/15

Product Use and Uses Advised Against: Auto cleaning product – For consumer use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.

GHS Classification:

| Physical: | Health: |
|---------------|---|
| Non-Hazardous | Skin Corrosion Category 1 Eye Corrosion Category 1 |

GHS Label Elements:



DANGER!

Contains Monoethanolamine and Alkyl dimethyl benzyl ammonium chloride (C12-16).

Statements of Hazard

Causes severe skin burns and eye damage

Prevention

Do not breathe vapors or mists.
Wear protective gloves, protective clothing, and eye protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.



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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.
Store locked up.
Dispose of contents and container in accordance with local and national regulations.

3. Composition/Information On Ingredients

| Component | CAS No. | Amount |
|--|------------|--------|
| Monoethanolamine | 141-43-5 | <1% |
| Alkyl dimethyl benzyl ammonium chloride (C12-16) | 68424-85-1 | <1% |

The exact concentrations are a trade secret.

4. First Aid Measures

Inhalation: If inhaled, remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. Get medical attention.

Skin Contact: If contact occurs, remove contaminated clothing. Immediately wash skin thoroughly with soap and water for at least 15 minutes. Get immediate medical attention. Launder clothing before re-use.

Eye Contact: If contact occurs, immediately flush eyes with large quantities of water for at least 20 minutes, holding the eyelids apart. Get immediate medical attention.

Ingestion: Unlikely route of exposure due to product form. However, if ingestion occurs, DO NOT induce vomiting. If the victim is fully conscious, have them rinse their mouth with water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Classified as corrosive based on pH. Direct contact with wipes may cause eye and skin burns with the possibility of corneal damage. Inhalation of mists may cause respiratory irritation.

Indication of Immediate Medical Attention/Special Treatment: Seek immediate medical attention for eye and skin contact. Ingestion will require immediate medical attention.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire. Product may burn after water has evaporated. Cool fire exposed containers with water.

Specific Hazards Arising From the Chemical: Closed containers may rupture if exposed to extreme heat. Burning may release nitrogen oxides, and oxides of carbon.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.



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6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Keep unprotected personnel away. Wear appropriate protective clothing and equipment as described in Section 8.

Environmental Precautions: Report spill as required by local and national regulations. Prevent entry in storm sewers and waterways.

Methods and Materials for Containment / Cleanup: Collect into a suitable container for disposal. Rinse area with water.

7. Handling and Storage

Precautions for Safe Handling: Prevent eye and skin contact. Avoid breathing mists or vapors. Use only with appropriate protective equipment. Launder contaminated clothing before re-use. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities.

Empty containers retain product residue and may be hazardous.

Conditions for Safe Storage, Including Any Incompatibilities:

Protect containers from physical damage. Store in a cool, well-ventilated area away from acids and other incompatible materials.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

| CHEMICAL | EXPOSURE LIMIT |
|--|---|
| Monoethanolamine | 3 ppm TWA, 6 ppm STEL ACGIH TLV 3 ppm TWA OSHA PEL |
| Alkyl dimethyl benzyl ammonium chloride (C12-16) | None Established |

Appropriate Engineering Controls: General ventilation should be adequate for all normal use.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions.

Gloves: Impervious gloves such as rubber, neoprene or nitrile are recommended.

Eye Protection: Safety glasses or goggles if eye contact is possible.

Other Protective Equipment/Clothing: Use protective clothing if skin contact is likely.

9. Physical and Chemical Properties

Appearance And Odor: Clear, thin colorless liquid with a citrus, woody, leather odor absorbed into white non-woven wipes.



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| | |
|--|--|
| Physical State: Clear, thin colorless liquid absorbed into white non-woven wipes. | Odor Threshold: Not available |
| pH: ~11.5 | Specific Gravity: ~ 1.0 |
| Initial Boiling Point/Range: Not determined | Vapor Pressure: Not determined |
| Melting/Freezing Point: Not determined | Vapor Density: Not determined |
| Solubility In Water: Complete (Liquid component) | Percent Volatile: >95% of liquid component |
| Viscosity: Not determined | Evaporation Rate: Not determined |
| Relative Density: Not determined | VOC Content: Not available |
| Coefficient Of Water/Oil Distribution: Not determined | Autoignition Temp: Not Determined |
| Flash Point: Not determined | Flammability Limits: LEL: Not applicable UEL: Not applicable |
| Decomposition Temperature: Not available | Flammability (solid, gas): Not applicable |

10. Stability and Reactivity

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Will react with acids and strong oxidizing agents.

Conditions To Avoid: None known.

Incompatible Materials: Acids and strong oxidizing agents.

Hazardous Decomposition Products: May release nitrogen oxides, and oxides of carbon.

11. Toxicological Information

Acute Hazards:

Inhalation: Mist and vapors may cause irritation to the eyes, mucous membranes and upper respiratory tract.

Skin Contact: Causes severe irritation and burns.

Eye Contact: Causes severe eye irritation, and burns. May cause eye damage.

Ingestion: May be harmful if swallowed. Causes mouth, throat, and gastrointestinal irritation and burns.

Chronic Effects: None currently known.

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Calculated ATE for Product: ATE Oral: >2,000 mg/kg
 ATE Skin: >2,000 mg/kg

Monoethanolamine: LD50 Oral Rat: 1,515 mg/kg
 LD50 Skin Rabbit: 2,504 mg/kg
 LC50 Inhalation Rat: >1.3 mg/L/6 hr.



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Alkyl dimethyl benzyl ammonium chloride
(C12-16): LD50 Oral Rat: 426 mg/kg

12. Ecological Information

Ecotoxicity:

Monoethanolamine:

LC50 Danio rerio (zebra fish) 3,682 mg/L/96 hr.

EC50 Daphnia magna (Water flea, neonate) 65 mg /L/24 hr.

Persistence and Degradability:

Monoethanolamine: Readily biodegradable

Bio accumulative Potential:

Monoethanolamine: Not expected to exhibit a significant bioaccumulation potential.

Mobility in Soil:

Monoethanolamine: No data available

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None



Safety Data Sheet

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Canada:

Canadian WHMIS Classification: Class E – (Corrosive material)

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

| | | | |
|-------------------------|-----------|---------|--------------------|
| NFPA Rating (NFPA 704): | Health: 3 | Fire: 0 | Instability: 0 |
| HMIS Rating: | Health: 3 | Fire: 0 | Physical Hazard: 0 |

REVISION SUMMARY: Update to OSHA HazCom 2012 GHS format. Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH



Safety Data Sheet

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Causes severe skin burns and eye damage

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Do not breathe vapors or mists.
Wear protective gloves, protective clothing, and eye protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.



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Danbury, CT 06810
Tel. 1-203-205-2900

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.
Store locked up.
Dispose of contents and container in accordance with local and national regulations.

3. Composition/Information On Ingredients

| Component | CAS No. | Amount |
|--|------------|--------|
| Monoethanolamine | 141-43-5 | <1% |
| Alkyl dimethyl benzyl ammonium chloride (C12-16) | 68424-85-1 | <1% |

The exact concentrations are a trade secret.

4. First Aid Measures

Inhalation: If inhaled, remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. Get medical attention.

Skin Contact: If contact occurs, remove contaminated clothing. Immediately wash skin thoroughly with soap and water for at least 15 minutes. Get immediate medical attention. Launder clothing before re-use.

Eye Contact: If contact occurs, immediately flush eyes with large quantities of water for at least 20 minutes, holding the eyelids apart. Get immediate medical attention.

Ingestion: Unlikely route of exposure due to product form. However, if ingestion occurs, DO NOT induce vomiting. If the victim is fully conscious, have them rinse their mouth with water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Classified as corrosive based on pH. Direct contact with wipes may cause eye and skin burns with the possibility of corneal damage. Inhalation of mists may cause respiratory irritation.

Indication of Immediate Medical Attention/Special Treatment: Seek immediate medical attention for eye and skin contact. Ingestion will require immediate medical attention.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire. Product may burn after water has evaporated. Cool fire exposed containers with water.

Specific Hazards Arising From the Chemical: Closed containers may rupture if exposed to extreme heat. Burning may release nitrogen oxides, and oxides of carbon.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.



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6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Keep unprotected personnel away. Wear appropriate protective clothing and equipment as described in Section 8.

Environmental Precautions: Report spill as required by local and national regulations. Prevent entry in storm sewers and waterways.

Methods and Materials for Containment / Cleanup: Collect into a suitable container for disposal. Rinse area with water.

7. Handling and Storage

Precautions for Safe Handling: Prevent eye and skin contact. Avoid breathing mists or vapors. Use only with appropriate protective equipment. Launder contaminated clothing before re-use. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities.

Empty containers retain product residue and may be hazardous.

Conditions for Safe Storage, Including Any Incompatibilities:

Protect containers from physical damage. Store in a cool, well-ventilated area away from acids and other incompatible materials.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

| CHEMICAL | EXPOSURE LIMIT |
|--|---|
| Monoethanolamine | 3 ppm TWA, 6 ppm STEL ACGIH TLV 3 ppm TWA OSHA PEL |
| Alkyl dimethyl benzyl ammonium chloride (C12-16) | None Established |

Appropriate Engineering Controls: General ventilation should be adequate for all normal use.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions.

Gloves: Impervious gloves such as rubber, neoprene or nitrile are recommended.

Eye Protection: Safety glasses or goggles if eye contact is possible.

Other Protective Equipment/Clothing: Use protective clothing if skin contact is likely.

9. Physical and Chemical Properties

Appearance And Odor: Clear, thin colorless liquid with a citrus, woody, leather odor absorbed into white non-woven wipes.



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| | |
|--|--|
| Physical State: Clear, thin colorless liquid absorbed into white non-woven wipes. | Odor Threshold: Not available |
| pH: ~11.5 | Specific Gravity: ~ 1.0 |
| Initial Boiling Point/Range: Not determined | Vapor Pressure: Not determined |
| Melting/Freezing Point: Not determined | Vapor Density: Not determined |
| Solubility In Water: Complete (Liquid component) | Percent Volatile: >95% of liquid component |
| Viscosity: Not determined | Evaporation Rate: Not determined |
| Relative Density: Not determined | VOC Content: Not available |
| Coefficient Of Water/Oil Distribution: Not determined | Autoignition Temp: Not Determined |
| Flash Point: Not determined | Flammability Limits: LEL: Not applicable UEL: Not applicable |
| Decomposition Temperature: Not available | Flammability (solid, gas): Not applicable |

10. Stability and Reactivity

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Will react with acids and strong oxidizing agents.

Conditions To Avoid: None known.

Incompatible Materials: Acids and strong oxidizing agents.

Hazardous Decomposition Products: May release nitrogen oxides, and oxides of carbon.

11. Toxicological Information

Acute Hazards:

Inhalation: Mist and vapors may cause irritation to the eyes, mucous membranes and upper respiratory tract.

Skin Contact: Causes severe irritation and burns.

Eye Contact: Causes severe eye irritation, and burns. May cause eye damage.

Ingestion: May be harmful if swallowed. Causes mouth, throat, and gastrointestinal irritation and burns.

Chronic Effects: None currently known.

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Calculated ATE for Product: ATE Oral: >2,000 mg/kg
 ATE Skin: >2,000 mg/kg

Monoethanolamine: LD50 Oral Rat: 1,515 mg/kg
 LD50 Skin Rabbit: 2,504 mg/kg
 LC50 Inhalation Rat: >1.3 mg/L/6 hr.



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Alkyl dimethyl benzyl ammonium chloride
(C12-16): LD50 Oral Rat: 426 mg/kg

12. Ecological Information

Ecotoxicity:

Monoethanolamine:

LC50 Danio rerio (zebra fish) 3,682 mg/L/96 hr.
EC50 Daphnia magna (Water flea, neonate) 65 mg /L/24 hr.

Persistence and Degradability:

Monoethanolamine: Readily biodegradable

Bio accumulative Potential:

Monoethanolamine: Not expected to exhibit a significant bioaccumulation potential.

Mobility in Soil:

Monoethanolamine: No data available

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None



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Canada:

Canadian WHMIS Classification: Class E – (Corrosive material)

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

| | | | |
|-------------------------|-----------|---------|--------------------|
| NFPA Rating (NFPA 704): | Health: 3 | Fire: 0 | Instability: 0 |
| HMIS Rating: | Health: 3 | Fire: 0 | Physical Hazard: 0 |

REVISION SUMMARY: Update to OSHA HazCom 2012 GHS format. Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH



ANTI-SEIZE TECHNOLOGY
A.S.T. Industries, Inc.

AST-PPD™ Plumbers Pipe Dope

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: AST-PPD™ Plumbers Pipe Dope

Manufacturer/ Supplier: Anti-Seize Technology
2345 N. 17th Ave.
Franklin Park, IL 60131

Phone: 847-455-2300
Toll Free: 800 991-1106
Web: antiseize.com

Emergency Phone, 24 hr: Infotrac @ 1-800-535-5053 (US & Canada)
1-352-323-3500 (International)

Product Use: Pipe Thread Sealant

Restriction on Use: None known

SDS Date of Preparation: December 11, 2017

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):

Not Hazardous

Label Elements: Not hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazard Phrases: None

Precautionary Phrases: None

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|--|------------|-------|
| Kaolin clay | 1332-58-7 | 10-20 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 15-30 |
| Calcium carbonate | 471-34-1 | 50-80 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of soap and water. Get medical attention if irritation persists.

Inhalation: Not a likely source of exposure. If respiratory symptoms should occur remove to fresh air and keep comfortable for breathing. If symptoms continue, get medical attention.

Ingestion: If large amounts ingested, seek medical attention. Do not induce vomiting.

Most Important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use water spray or fog, foam, carbon dioxide or dry chemical.

Special Hazards Arising from the Chemical: Hazardous decomposition products may yield oxides of carbon and calcium, May result in a slip hazard in a fire situation.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Do not transfer to unlabeled containers. Keep container closed when not in use.

Conditions for Safe Storage, Including any Incompatibilities: Store away from extreme heat and open flames. Store away from concentrated oxygen.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|--|--|
| Kaolin clay | 2 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACGIH TLV (inhalable) 5 mg/m ³ TWA OSHA PEL |
| Calcium carbonate | 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |

Appropriate Engineering Controls: Normally not required. Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact .

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: Tan colored paste | Vapor Density (air = 1): Not available |
| Odor: Mild petroleum like odor | Specific Gravity: 1.8 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Neutral | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: >650°F | Decomposition Temperature: Not available |
| Flash Point: >350°F | Viscosity: Not available |

| | |
|--|--|
| | |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: Not established | Aerosol Fire Protection Level: Not applicable |
| VOC Content: <0.1% | Flammability (solid, gas): Not available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Not anticipated.

Conditions to Avoid: Temperatures exceeding 400°F.

Incompatible Materials: Avoid concentrated oxygen, acids or strong oxidizers.

Hazardous Decomposition Products: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause mild skin irritation.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of thermal decomposition products may result in lung damage.

Carcinogen Status: none listed

Acute Toxicity Values:

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg, inhalation rat LC50: 2.18 mg/L, dermal rabbit LD50 > 2000 mg/kg

Calcium Carbonate: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 3 mg/L, dermal rat LD50 > 2000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Distillates (petroleum), hydrotreated heavy naphthenic: Pimephales promelas LL50 > 100 mg/L/96hr.

Calcium Carbonate: Oncorhynchus mykiss LC50 > 100 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations. .

SECTION 14: TRANSPORT INFORMATION

DOT

Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

ICAO/IATA

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to reporting requirements under CERCLA. However, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not Hazardous

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

NFPA RATING: H-0, F-1, R-0

HMIS RATING: HEALTH =1, FLAMMABILITY =0, REACTIVITY = 0, PERSONAL PROTECTION = A

| |
|--------------------------------------|
| SECTION 16: OTHER INFORMATION |
|--------------------------------------|

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Safety Data Sheet



Issue Date: 2-June-2014

Revision Date: 26-May-2015

Version 1

1. IDENTIFICATION

Product Identifier

Product Name CARQUEST Wearever DOT 3 Brake Fluid

Other means of identification

SDS # CQ-028

Restrictions on Use:

FOR LABELS FOR THE GENERAL PUBLIC:

If medical advice is needed, have product container or label at hand.

Keep out of reach of children and animals.

Read label before use.

FOR THE INDUSTRIAL WORKER:

Industrial use only.

Details of the supplier of the safety data sheet

Warren Unilube, Inc.
(An Affiliate of Warren Oil Co., Inc.)
915 E. Jefferson
West Memphis, AR 72301

Emergency Telephone Number

Company Phone Number 1-800-428-9284
Emergency Telephone (24 hr) CHEMTREC 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Hazard Classification:

OSHA Hazards: Target Organ Effect, Harmful by Ingestion, Irritant, Teratogen, Reproductive hazard.

Target Organs: Kidney, Liver, Central Nervous System, Female Reproductive System, Male Reproductive System, Blood.

GHS Classification:

Acute toxicity, dermal (Category 5)
Acute toxicity, oral (Category 4)
Skin Irritation (Category 3)
Serious eye damage (Category 1)
Reproductive toxicity (Category 2)

Signal Word: WARNING



Hazard Statements:

H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H316 Causes mild skin irritation.
H318 Causes serious eye damage.
H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements:

P201 Obtain special instructions before use.
P202 Do not handle until all safety instructions have been read and understood.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection / face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor / physician immediately.
P330 IF SWALLOWED: Rinse mouth.
P312 IF ON SKIN: Call a POISON CENTER or doctor / physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice / attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
P310 IF IN EYES: Immediately call a POISON CENTER or doctor / physician/
P308 + P313 If exposed or concerned: Get medical advice / attention.

HMIS Classification:

Health Hazard: 1
 Chronic Health Hazard
 Flammability: 1
 Physical Hazards: 0

NFPA Rating:

Health Hazard: 1
 Fire: 1
 Reactivity: 0

Description of Any Other Hazards Not Otherwise Classified: none known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>INGREDIENT Name</u> | <u>CAS NUMBER</u> | <u>%wt. or %V</u> |
|-------------------------------------|-------------------|-------------------|
| Triethylene Glycol Monomethyl Ether | 112-35-6 | 5 – 50 |
| Triethylene Glycol Monoethyl Ether | 112-50-5 | 5 – 50 |
| Triethylene Glycol Monobutyl Ether | 143-22-6 | 5 – 50 |
| Tetrathylene Glycol Monobutyl Ether | 1559-34-8 | 5 – 20 |
| Polyethylene Glycol | 25322-68-3 | 5 – 20 |
| Diethylene Glycol Monobutyl Ether | 112-34-5 | 5 – 20 |
| Diethylene Glycol | 111-46-6 | 5 – 15 |

| INGREDIENT Name | CAS NUMBER | %wt. or %V |
|--------------------------------------|-------------------|-------------------|
| Diethylene Glycol Monomethyl Ether | 111-77-3 | < 5 |
| Diethylene Glycol Monoethyl Ether | 111-90-0 | < 5 |
| Polyalkylene Glycol Monobutyl Ether | 9004-77-7 | 5 – 20 |
| Polyalkylene Glycol Monomethyl Ether | 23783-42-8 | 5 – 20 |
| Polyalkylene Glycol | 9038-95-3 | 5 – 20 |
| Trade Secret Inhibitor Package | Trade Secret | 3 |

Three percent (3%) of the composition of this material has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

| | |
|-------------------|--|
| EYES | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation continues or persists, get medical advice / attention. |
| SKIN: | Wash with plenty of soap and water. If skin irritation occurs, get medical advice / attention. |
| INHALATION | Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician. |
| INGESTION | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

NOTES TO PHYSICIANS OR FIRST AIR PROVIDERS: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

Dry chemical, foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak, and disperse vapors.

UNSUITABLE EXTINGUISHING MEDIA

Direct water stream.

SPECIAL FIRE FIGHTING PROCEDURES

Evacuate area. Do not use direct water stream to extinguish fires. Do not release runoff from fire control methods to sewers or waterways.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None known.

HAZARDOUS COMBUSTION PRODUCTS

Carbon monoxide, carbon dioxide, and unidentified organic compounds.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Wear full protective clothing and NIOSH – approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive breathing mode.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use appropriate personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with spilled material. Insure adequate ventilation. Remove all sources of ignition. Use non-sparking tools and equipment.

PROTECTIVE CLOTHING

Standard work uniform. Impervious gloves. Safety glasses. Personnel should increase PPE level as deemed appropriate in any given situation.

EMERGENCY PROCEDURES**SMALL SPILLS**

Contain and recover liquid when possible. Collect liquid in appropriate container or absorb with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

LARGE SPILLS**Containment**

Shut off source of leak if safe to do so. Dike far ahead of liquid spill for later disposal. Do not allow material to enter sewers or waterways.

Cleanup

Contain and recover liquid when possible. Collect liquid in appropriate container. Absorb residue with an inert material (such as vermiculite or dry sand) and place in chemical waster container. Do not use combustible materials such as sawdust for the cleanup.

7. HANDLING AND STORAGE**HANDLING PRECAUTIONS**

May be harmful or fatal if swallowed.

STORAGE REQUIREMENTS

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS**

Controls should be such that adequate ventilation is provided.

VENTILATION

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work place by controlling it at its source.

RESPIRATORY PROTECTION

Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA / NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (e.g. cleaning spills, reactor vessels, or storage tanks), wear an SCBA. ***WARNING!*** *Air purifying respirators do not protect workers in oxygen-deficient atmospheres!* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

EYE PROTECTION

Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

SKIN PROTECTON

Wear chemically protective gloves, boots, aprons and gauntlets to prevent prolonged or repeated skin contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Make emergency eyewash stations, safety / quick drench showers and washing facilities available in work areas.

WORK HYGIENE PRACTICES

Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material especially before eating, drinking or smoking, using the toilet, or applying cosmetics. Separate contaminate work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Discard belts and shoes that cannot be cleaned.

EXPOSURE GUIDELINES:

| Ingredient | OSHA PEL | | ACGIH TLV | | NIOSH REL | | USA WEEL |
|--------------------------------------|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | TWA | STEL | TWA | STEL | TWA | STEL | |
| | Triethylene Glycol Monomethyl Glycol | None established | None established | None established | None established | None established | |
| Triethylene Glycol Monoethyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Triethylene Glycol Monobutyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Tetraethylene Glycol Monobutyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Polyethylene Glycol | None established | None established | None established | None established | None established | None established | 10 mg / m3 |
| Diethylene Glycol Monobutyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Diethylene Glycol | None established | None established | None established | None established | None established | None established | 10 mg / m3 |
| Diethylene Glycol Monomethyl Ether | None established | None established | None established | None established | None established | None established | 25 ppm |
| Diethylene Glycol Monoethyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Diethylene Glycol Monobutyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Polyalkylene Glycol Monobutyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Polyalkylene Glycol Monomethyl Ether | None established | None established | None established | None established | None established | None established | None established |
| Polyalkylene Glycols | None established | None established | None established | None established | None established | None established | None established |
| Inhibitor Package | None established | None established | None established | None established | None established | None established | None established |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--|
| Physical State: | Liquid |
| Appearance and Color: | Yellow to Amber |
| Odor: | Mild |
| Flash Point: | >275°F (>135°C) |
| Upper / Lower Flammability or Explosive Limits | Not available |
| Auto Ignition Temperature: | Not available |
| Decomposition Temperature: | Not available |
| Vapor Pressure: | Not available |
| Odor Threshold: | Not available |
| Vapor Density (air=1) | > 1 |
| pH: | 10.0 – 11.5 |
| Relative Density: | 8.33 – 9.02 lb/gal |
| Specific Gravity (H₂O=1 AT 4 C): | 1.000 – 1.070 |
| Melting Point / Freeze Point: | Not available |
| Water Solubility: | Soluble |
| Other Solubilities: | Not available |
| Initial Boiling Point And Boiling Range: | 480°F (248.9°C), boiling range not available |
| Evaporation Rate (BuAc = 1): | <0.01 |
| Partition Coefficient: n-OCTANOL / WATER | Not available |
| Viscosity: | Not available |
| Refractive Index: | Not available |
| Formula Weight: | Mixture |

10. STABILITY AND REACTIVITY

REACTIVITY

None under normal handling.

STABILITY

Stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID)

None known.

HAZARDOUS DECOMPOSITION BY-PRODUCTS

Thermal oxidative decomposition can produce carbon monoxide, carbon dioxide and unknown organic compounds.

HAZARDOUS POLYMERIZATION

Hazardous polymerization will not occur.

CONDITIONS TO AVOID (POLYMERIZATION)

Hazardous polymerization will not occur.

HAZARDOUS POLYMERIZATION BY-PRODUCT

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

SIGN AND SYMPTOMS OF OVEREXPOSURE: Swallowing larger amounts may cause nausea and vomiting, abdominal discomfort or diarrhea. May cause dizziness and drowsiness.

ACUTE EFFECTS:

| | |
|---------------------|---|
| EYE CONTACT | May cause slight eye irritation. May cause slight corneal injury. |
| SKIN CONTACT | Brief contact is essentially nonirritating to skin. |
| INHALATION | At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of the upper respiratory tract. |
| Ingestion | Toxic or fatal if ingested. For diethylene glycol, a component of this mixture, a lethal dose can be as little as two ounces. Symptoms of diethylene glycol poisoning include severe abdominal cramping, diarrhea, vomiting, sweating, confusion, cardiac abnormalities, neurological abnormalities, infrequent urination, intoxication or CNS depression. If left untreated, product will metabolize to cause metabolic acidosis, renal failure, hyperkalemia, hyponatremia, paralysis, cardiac failure or death. Seek medical attention immediately for poisoning. If ingested, DO NOT wait for symptoms to develop before getting treatment. |

TARGET ORGAN EFFECTS

Product is toxic to kidneys, liver, central nervous system and heart. Metabolic products of diethylene glycol produce acidosis and organ toxicity effects.

CHRONIC EFFECTS

May cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Various skin conditions.

ACUTE TOXICITY VALUES**Triethylene Glycol Monomethyl Ether**

ORAL LD50 (rat): 11,842 mg/kg

DERMAL LD50 (rabbit): 7,441 mg/kg

INHALATION LC50 (state animal): data unavailable

Triethylene Glycol Monoethyl Ether

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Triethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,300 mg/kg

DERMAL LD50 (rabbit): 3,505 mg/kg

INHALATION LC50 (state animal): data unavailable

Tetraethylene Glycol Monobutyl Ether

ORAL LD50 (rat): data unavailable

DERMAL LD50 (rabbit): data unavailable

INHALATION LC50 (state animal): data unavailable

Polyethylene Glycol

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,660 mg/kg

DERMAL LD50 (rabbit): 2,700 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol

ORAL LD50 (rat): 12,565 mg/kg

DERMAL LD50 (rabbit): 11,890 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monomethyl Ether

ORAL LD50 (rat): >7,000 mg/kg

DERMAL LD50 (rabbit): >20,400 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monoethyl Ether

ORAL LD50 (rat): 10,502 mg/kg

DERMAL LD50 (rabbit): 9,143 mg/kg

INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monobutyl Ether

ORAL LD50 (rat): >2,000 mg/kg

DERMAL LD50 (rabbit): >2,000 mg/kg

INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monomethyl Ether

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycols

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

LISTED CARCINOGEN

NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC LISTED AS POTENTIAL CARCINOGEN

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA LISTED AS POTENTIAL CARCINOGEN

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

DATA FROM TOXICITY TESTS ON AQUATIC AND/OR TERRESTRIAL ORGANISMS:

Triethylene Glycol Monomethyl Ether: data unavailable

Triethylene Glycol Monoethyl Ether: data unavailable

Triethylene Glycol Monobutyl Ether: data unavailable

Tetraethylene Glycol Monobutyl Ether: data unavailable

Polyethylene Glycol

Fish: LC50 – *Leuciscus idus* (Golden orfe) <500 mg/l

Daphnia: data unavailable

Diethylene Glycol Monobutyl Ether

Fish: LC50 – *Lepomis macrochirus* – 1,300 mg/l – 96h

LC50 – Leuciscus idus (Golden orfe) - >1,000 mg/l – 48h
Daphnia: data unavailable

Diethylene Glycol

Fish: LC50 – Pimephales promelas (fathead minnow) – 75,200 mg/l – 96h
LC50 – Carassius auratus (goldfish) – 5,000 mg/l – 24h
Daphnia: EC50 – Daphnia magna (Water flea) - >10,000 mg/l – 24h

Diethylene Glycol Monomethyl Ether

Fish: LC50 – Lepomis macrochirus – 7,500 mg/l – 96h
Daphnia: data unavailable

Diethylene Glycol Monoethyl Ether

Fish: LC50 – Pimephales promelas (fathead minnow) – 9,650 mg/l – 96h
Daphnia: EC50 – Daphnia magna (Water flea) - >3,340 mg/l – 24h

Polyalkylene Glycol Monobutyl Ether: data unavailable

Polyalkylene Glycol Monomethyl Ether: data unavailable

Polyalkylene Glycols: data unavailable

ENVIRONMENTAL FATE: data unavailable for mixture

BIOACCUMULATION POTENTIAL: data unavailable for mixture

POTENTIAL TO MOVE FROM SOIL TO GROUNDWATER: data unavailable for mixture

OTHER ADVERSE ENVIRONMENTAL EFFECTS: data unavailable for mixture

13. DISPOSAL CONSIDERATIONS

CONTAINERS TO USE

No specific recommendations.

RECOMMENDED DISPOSAL METHODS

Whatever cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with Federal, State/Provincial and Local requirements.

PHYSICAL AND CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES

No specific information available/

WHENEVER POSSIBLE, MATERIAL SHOULD NOT BE ALLOWED TO ENTER SEWAGE DISPOSAL SYSTEMS.

SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION ACTIVITIES

No specific information available.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (49 CFR 172.101)

PROPER SHIPPING NAME: DOT 3 Brake Fluid
DOT Non-Bulk: Not Regulated
DOT Bulk: Not Regulated

IATA

Not Dangerous Goods

IMDG

Not Dangerous Goods

15. REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS****TSCA (Toxic Substance Control Act):** all components are listed on the TSCA Inventory.**CERCLA (Comprehensive Response Compensation and Liability Act):** None. However, this product contains various ethylene glycols and glycol ethers which are each included as a broad category on the CERCLA Hazardous Substance list.**SARA TITLE III (Superfund Amendments and Reauthorization Act):** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**311/312 HAZARD CATEGORIES:****Immediate Hazard: yes****Delayed Hazard: yes****Fire Hazard: no****Pressure Hazard: no****Reactivity Hazard: no****313 REPORTABLE INGREDIENTS:** The following components are subject to reporting levels established by SARA Title III, Section 313:

| | |
|-----------------------------|----------------------|
| 2-(2-Ethoxyethoxy) ethanol | CAS Number: 111-90-0 |
| 2-(2-methoxyethoxy) ethanol | CAS Number: 111-77-3 |
| 2-(2-Butoxyethoxy) ethanol | CAS Number: 112-34-5 |

CLEAN WATER ACT (CWA): None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.**CLEAN AIR ACT (CAA):** None of the chemicals in the product are listed as Hazardous Air Pollutants.**STATE REGULATIONS:****California:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.**Massachusetts:**

| | |
|-----------------------------|----------------------|
| 2-(2-Methoxyethoxy) ethanol | CAS Number: 111-77-3 |
|-----------------------------|----------------------|

New Jersey:

| | |
|------------------------------------|------------------------|
| Triethylene glycol monobutyl ether | CAS Number: 143-22-6 |
| Polyethylene glycol | CAS Number: 25322-68-3 |
| 2-(2-Butoxyethoxy) ethanol | CAS Number: 112-34-5 |
| Diethylene glycol | CAS Number: 111-46-6 |
| 2-(2-Methoxyethoxy) ethanol | CAS Number: 111-77-3 |
| 2-(2-Ethoxyethoxy) ethanol | CAS Number: 111-90-0 |

Pennsylvania:

| | |
|------------------------------------|------------------------|
| Triethylene glycol monobutyl ether | CAS Number: 143-22-6 |
| Polyethylene glycol | CAS Number: 25322-68-3 |
| 2-(2-Butoxyethoxy) ethanol | CAS Number: 112-34-5 |
| Diethylene glycol | CAS Number: 111-46-6 |
| 2-(2-Methoxyethoxy) ethanol | CAS Number: 111-77-3 |
| 2-(2-Ethoxyethoxy) ethanol | CAS Number: 111-90-0 |

INTERNAL REGULATIONS:**Persistent Organic Pollutants (United Nations):** not listed

Initial List of Prior Informed Consent Chemicals (United Nations): not listed
Ozone Depleting Substance (Montreal Protocol): not listed
Greenhouse Gases (Intergovernmental Panel on Climate Change): not listed

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES: All components are listed

CANADA: DOMESTIC SUBSTANCES LIST: All components are listed

CANADA WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS): D2B – Toxic Material at >1%

CANADIAN ENVIRONMENTAL PROTECTION AGENCY TOXICS LIST: None of the components of this mixture are listed

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES: This material contains a component not listed on the EINECS Inventory: Polyalkylene glycol, CAS Number 9038-95-3.

NEW ZEALAND: All components are listed.

PHILLIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES: All components are listed.

16. OTHER INFORMATION

Issue Date: 2-June-2014
Revision Date: 26-May-2015
Revision Note: New format

Disclaimer

This product is FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. DO NOT TAKE INTERNALLY.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET



Issuing Date: 05-Oct-2015

Revision Date: 05-Oct-2015

Version 1

1. IDENTIFICATION

| | |
|----------------------------|--|
| Product Name | Dawn Ultra Dishwashing Liquid, Original Scent |
| Product ID: | 97591965_RET_NG |
| Product Type: | Finished Product - Consumer (Retail) Use Only |
| Recommended use | Dish Care |
| Restrictions on Use | Use only as directed on label. |
| Synonyms | Dawn Ultra Dishwashing Liquid, Pomegranate Awakening (97591967_RET_NG) Dawn Ultra Dishwashing Liquid, Apple Orchard Harvest (97591968_RET_NG) |
| Manufacturer | PROCTER & GAMBLE - Fabric and Home Care Division Ivorydale Technical Centre 5289 Spring Grove Avenue Cincinnati, Ohio 45217-1087 USA Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-331-3774 |
| E-mail Address | pgsds.im@pg.com |
| Emergency Telephone | Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531 |

2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:

| | |
|--------------------------------|-----------------------|
| Hazard Category | |
| Eye Damage / Irritation | Category 2B |
| Signal Word | WARNING |
| Hazard Statements | Causes eye irritation |
| Hazard pictograms | None |

| | |
|--|---|
| Precautionary Statements - Prevention | Wash hands thoroughly after handling |
| Precautionary Statements - Response | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF SWALLOWED: Drink 1 or 2 glasses of water |
| Precautionary Statements - Storage | None |
| Precautionary Statements - Disposal | None |
| Hazards not otherwise classified (HNOC) | None |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

| Chemical Name | Synonyms | Trade Secret | CAS-No | Weight % |
|---|---|--------------|------------|----------|
| Sulfuric acid, mono-C10-16-alkyl esters, sodium salts | Sulfuric acid, mono-C10-16-alkyl esters, sodium salts | No | 68585-47-7 | 15 - 20 |
| Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts | Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts | No | 68585-34-2 | 5 - 10 |
| Amine oxides, C10-16-alkyldimethyl | Amine oxides, C10-16-alkyldimethyl | No | 70592-80-2 | 5 - 10 |
| Ethanol | Ethanol | No | 64-17-5 | 1 - 5 |

4. FIRST AID MEASURES

First aid measures for different exposure routes

| | |
|---|---|
| Eye contact | Rinse with plenty of water. Get medical attention immediately if irritation persists. |
| Skin contact | Rinse with plenty of water. Get medical attention if irritation develops and persists. |
| Ingestion | Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur. |
| Inhalation | Move to fresh air. If symptoms persist, call a physician. |
| Most important symptoms/effects, acute and delayed | None under normal use conditions. |

Indication of immediate medical attention and special treatment needed, if necessary

| | |
|---------------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES

| | |
|---|--|
| Suitable extinguishing media | Dry chemical, CO ₂ , alcohol-resistant foam or water spray. |
| Unsuitable Extinguishing Media | None. |
| Special hazard | None known. |
| Special protective equipment for fire-fighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
| Specific hazards arising from the chemical | None. |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|--|---|
| Personal precautions | Use personal protective equipment. Do not get in eyes, on skin, or on clothing. |
| Advice for emergency responders | Use personal protective equipment as required. |

Methods and materials for containment and cleaning up

| | |
|--------------------------------|---|
| Methods for containment | Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |
| Methods for cleaning up | Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). |

7. HANDLING AND STORAGE

Precautions for safe handling

| | |
|--------------------------------|---|
| Advice on safe handling | Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children. |
|--------------------------------|---|

Conditions for safe storage, including any incompatibilities

| | |
|------------------------------|--|
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. |
| Incompatible products | None known. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | CAS-No | ACGIH TLV | OSHA PEL | Mexico PEL |
|---------------|---------|----------------|--|--|
| Ethanol | 64-17-5 | STEL: 1000 ppm | TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³ | Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m ³ |

| Chemical Name | CAS-No | Alberta | Quebec | Ontario TWAEV | British Columbia |
|---------------|---------|--|--|----------------|------------------|
| Ethanol | 64-17-5 | TWA: 1000 ppm TWA: 1880 mg/m ³ | TWA: 1000 ppm TWA: 1880 mg/m ³ | STEL: 1000 ppm | STEL: 1000 ppm |

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures**Distribution, Workplace and Household Settings:**

Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment**Eye Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Use appropriate eye protection

Hand Protection**Distribution, Workplace and Household Settings:**

No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Protective gloves

Skin and Body Protection**Distribution, Workplace and Household Settings:**

No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Wear suitable protective clothing

Respiratory Protection**Distribution, Workplace and Household Settings:**

No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical State @20°C**

liquid

Appearance

Various color by product

Odor

Scented

Odor threshold

No information available

Property**Values****Note****pH value**

9.0 - 9.2

10% aqueous solution

Melting/freezing point

No information available

Boiling point/boiling range

100 - 104 °C / 212 - 219 °F

Flash point

No Flash to Boiling (NFTB)

Evaporation rate

No information available

Flammability (solid, gas)

No information available

Flammability Limits in Air**Upper flammability limit**

No information available

Lower Flammability Limit

No information available

Vapor pressure

No information available

Vapor density

No information available

Relative density

1.04

Water solubility

100%

Solubility in other solvents

No information available

Partition coefficient: n-octanol/water No information available**Autoignition temperature**

No information available

Decomposition temperature

No information available

Viscosity of Product No information available
VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
Stability Stable under normal conditions.
Hazardous polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.
Conditions to Avoid None under normal processing.
Materials to avoid None in particular.
Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation No known effect.
Skin contact No known effect.
Ingestion No known effect.
Eye contact Irritating to eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity No known effect.
Skin corrosion/irritation No known effect.
Serious eye damage/eye irritation Irritating to eyes.
Skin sensitization No known effect.
Respiratory sensitization No known effect.
Germ cell mutagenicity No known effect.
Neurological Effects No known effect.
Reproductive toxicity No known effect.
Developmental toxicity No known effect.
Teratogenicity No known effect.
STOT - single exposure No known effect.
STOT - repeated exposure No known effect.
Target Organ Effects No known effect.
Aspiration hazard No known effect.
Carcinogenicity No known effect.

Component Information

| Chemical Name | CAS-No | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|------------|-------------|-------------|-----------------|
| Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts | 68585-34-2 | >2001 mg/kg | - | - |

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility No information available.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Codes (non-household setting) 331

14. TRANSPORT INFORMATION

DOT Not regulated

IMDG Not regulated

IATA Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

| Chemical Name | CAS-No | Hazardous Substances RQs | Extremely Hazardous Substances RQs | CERCLA/SARA 302 TPQ |
|------------------|-----------|--------------------------|------------------------------------|---------------------|
| Sodium hydroxide | 1310-73-2 | 1000 lb | - | |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substance(s) which are either listed as hazardous air pollutants (HAPS) or VOC's per the Clean Air Act:

| Chemical Name | CAS-No | CAA (Clean Air Act) - 1990 Hazardous Air Pollutants |
|----------------|----------|---|
| Phenoxyethanol | 122-99-6 | X |

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

| Chemical Name | CAS-No | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------|-----------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium hydroxide | 1310-73-2 | 1000 lb | - | - | X |

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

| Chemical Name | CAS-No | New Jersey |
|---------------|---------|------------|
| Ethanol | 64-17-5 | X |

| Chemical Name | CAS-No | Massachusetts |
|---------------|---------|---------------|
| Ethanol | 64-17-5 | X |

| Chemical Name | CAS-No | Pennsylvania |
|------------------|-----------|--------------|
| Ethanol | 64-17-5 | X |
| Sodium hydroxide | 1310-73-2 | X |
| Phenoxyethanol | 122-99-6 | X |

International Inventories

United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 05-Oct-2015

Revision Date: 05-Oct-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS




SAFETY DATA SHEET

1. Identification

| | |
|---|--|
| Product identifier | Heavy Duty Degreaser II |
| Other means of identification | |
| Product Code | No. 03120 (Item# 1003398) |
| Recommended use | General purpose degreaser |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/Distributor information | |
| Manufactured or sold by: | |
| Company name | CRC Industries, Inc. |
| Address | 885 Louis Dr. Warminster, PA 18974 US |
| Telephone | |
| General Information | 215-674-4300 |
| Technical Assistance | 800-521-3168 |
| Customer Service | 800-272-4620 |
| 24-Hour Emergency | 800-424-9300 (US) |
| (CHEMTREC) | 703-527-3887 (International) |
| Website | www.crcindustries.com |

2. Hazard(s) identification

| | | |
|------------------------------|---|------------------------------|
| Physical hazards | Flammable aerosols Gases under pressure | Category 1 Compressed gas |
| Health hazards | Serious eye damage/eye irritation Aspiration hazard | Category 2A Category 1 |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements |  | |

| | |
|--------------------------------|--|
| Signal word | Danger |
| Hazard statement | Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes serious eye irritation. |
| Precautionary statement | |
| Prevention | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Wash thoroughly after handling. Wear eye protection/face protection. |
| Response | If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Storage | Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst. |
| Disposal | Dispose of contents/container in accordance with local/regional/national regulations. |

| | |
|--|-------------|
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---|--------------------------|------------|---------|
| distillates (petroleum), hydrotreated light | | 64742-47-8 | 50 - 60 |
| dipropylene glycol monopropyl ether (dpmp) | | 29911-27-1 | 20 - 30 |
| carbon dioxide | | 124-38-9 | 3 - 5 |

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

| | |
|---|--|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, acute and delayed | Aspiration may cause pulmonary edema and pneumonitis. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| Fire fighting equipment/instructions | In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. |
| General fire hazards | Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame. |

6. Accidental release measures

| | |
|--|---|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. |

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| Components | Type | Value |
|--|------|-----------------------|
| carbon dioxide (CAS 124-38-9) | PEL | 9000 mg/m3 |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | PEL | 5000 ppm 400 mg/m3 |
| | | 100 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-------------------------------|------|-----------|
| carbon dioxide (CAS 124-38-9) | STEL | 30000 ppm |
| | TWA | 5000 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|--|------|------------------------|
| carbon dioxide (CAS 124-38-9) | STEL | 54000 mg/m3 |
| | | 30000 ppm |
| | TWA | 9000 mg/m3 5000 ppm |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | TWA | 100 mg/m3 |

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower should be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Neoprene.

Other Wear appropriate chemical resistant clothing.

| | |
|---------------------------------------|--|
| Respiratory protection | If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

9. Physical and chemical properties

Appearance

| | |
|---|----------------------------|
| Physical state | Liquid. |
| Form | Aerosol. |
| Color | Water-white. |
| Odor | Slight. Hydrocarbon-like. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | -121 °F (-85 °C) estimated |
| Initial boiling point and boiling range | 392 °F (200 °C) estimated |
| Flash point | 185 °F (85 °C) Setflash |
| Evaporation rate | Slow. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 0.6 % estimated |
| Flammability limit - upper (%) | 8.3 % estimated |
| Vapor pressure | 2265.4 hPa estimated |
| Vapor density | > 1 (air = 1) |
| Relative density | 0.87 estimated |
| Solubility(ies) | |
| Solubility (water) | Slightly soluble. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 401 °F (205 °C) estimated |
| Decomposition temperature | Not available. |
| Percent volatile | 96 % estimated |

10. Stability and reactivity

| | |
|---|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides. Aldehydes. Ketones. Organic acids. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |

| | | |
|---|---|----------------------------|
| Ingestion | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. | |
| Symptoms related to the physical, chemical and toxicological characteristics | Aspiration may cause pulmonary edema and pneumonitis. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. | |
| Information on toxicological effects | | |
| Acute toxicity | May be fatal if swallowed and enters airways. | |
| Components | Species | Test Results |
| dipropylene glycol monopropyl ether (dpmp) (CAS 29911-27-1) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg 5340 mg/kg |
| Oral | | |
| LD50 | Rat | > 2000 mg/kg 1475 mg/kg |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 20 mg/l, 4 hours |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Serious eye damage/eye irritation | Causes serious eye irritation. | |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Skin sensitization | This product is not expected to cause skin sensitization. | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Carcinogenicity | Not classifiable as to carcinogenicity to humans. | |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| Not listed. | | |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) | | |
| Not regulated. | | |
| US. National Toxicology Program (NTP) Report on Carcinogens | | |
| Not listed. | | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. | |
| Specific target organ toxicity - single exposure | Not classified. | |
| Specific target organ toxicity - repeated exposure | Not classified. | |
| Aspiration hazard | May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death. | |
| Chronic effects | Prolonged inhalation may be harmful. | |

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test Results |
|--|---|--|
| dipropylene glycol monopropyl ether (dpmp) (CAS 29911-27-1) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (Daphnia magna) > 100 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) > 100 mg/l, 96 hours |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) 2.7 - 5.1 mg/l, 48 hours |
| Persistence and degradability | No data is available on the degradability of any ingredients in the mixture. | |
| Bioaccumulative potential | | |
| Partition coefficient n-octanol / water (log Kow) | | |
| dipropylene glycol monopropyl ether (dpmp) | 0.87 OECD 107 | |
| | 0.88 OECD 107 | |
| Mobility in soil | No data available. | |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | |

13. Disposal considerations

| | |
|-------------------------------|---|
| Hazardous waste code | Not regulated. |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |
| Disposal instructions | The dispensed liquid product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations. |

14. Transport information

DOT

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | N82 |
| Packaging exceptions | 306 |
| Packaging non bulk | 304 |
| Packaging bulk | None |

IATA

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| ERG Code | 10L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |
| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

| | |
|------------------|--------|
| UN number | UN1950 |
|------------------|--------|

| | |
|-------------------------------------|---|
| UN proper shipping name | AEROSOLS, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | F-D, S-U |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Hazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Gas under pressure
Acute toxicity (any route of exposure)
Serious eye damage or eye irritation
Aspiration hazard

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

carbon dioxide (CAS 124-38-9)

US. Massachusetts RTK - Substance List

carbon dioxide (CAS 124-38-9)

US. Pennsylvania Worker and Community Right-to-Know Law

carbon dioxide (CAS 124-38-9)

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 96 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as a General Purpose Degreaser (aerosol). This product is compliant for use in all 50 states.

VOC content (CA) 0 %

VOC content (OTC) 0 %

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | Yes |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Toxic Chemical Substances (TCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

| | |
|----------------------------|--------------------|
| Issue date | 08-12-2014 |
| Revision date | 02-15-2018 |
| Prepared by | Allison Yoon |
| Version # | 02 |
| Further information | CRC # 490C/1002479 |

Disclaimer The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information This document has undergone significant changes and should be reviewed in its entirety.



The Professional's Choice

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name EXTREME DUTY SILICONE
Synonyms 3030 - PRODUCT CODE • CRC EXTREME DUTY SILICONE

1.2 Uses and uses advised against

Uses LUBRICANT • SILICONE LUBRICANT

1.3 Details of the supplier of the product

Supplier name CRC INDUSTRIES (AUST) PTY LIMITED
Address 9 Gladstone Road, Castle Hill, NSW, 2154, AUSTRALIA
Telephone (02) 9849 6700
Fax (02) 9680 4914
Email info.au@crcind.com
Website www.crcindustries.com.au

1.4 Emergency telephone numbers

Emergency 13 11 26 (PIC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Aerosols - Flammable: Category 1
Aerosols - Pressurised: Category 1

Health Hazards

Not classified as a Health Hazard

Environmental Hazards

Not classified as an Environmental Hazard

2.2 GHS Label elements

Signal word DANGER

Pictograms



Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurized container: may burst if heated.

Prevention statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.

PRODUCT NAME EXTREME DUTY SILICONE**Response statements**

None allocated.

Storage statements

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C.

Disposal statements

None allocated.

2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

| Ingredient | CAS Number | EC Number | Content |
|--|------------|-----------|-----------|
| PETROLEUM GASES, LIQUEFIED (<0.1% 1,3-BUTADIENE) | 68476-85-7 | 270-704-2 | 30 to 60% |
| HYDROCARBONS, C6-20, POLYMERS, HYDROGENATED | 6943-35-9 | - | 30 to 60% |
| SILICONE COMPOUND(S) | - | - | <10% |

4. FIRST AID MEASURES

4.1 Description of first aid measures

| | |
|-----------------------------|--|
| Eye | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes. |
| Inhalation | If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing. |
| Skin | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor. |
| Ingestion | For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form. |
| First aid facilities | None allocated. |

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Aerosol may explode at temperatures exceeding 50°C. Eliminate all ignition sources, including cigarettes, open flames, spark producing switches/tools, heaters, pilot lights, mobile phones, etc when handling. Aerosol cans may explode above 50°C. May evolve silicon oxides when heated to decomposition.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

2Y
2 Fine Water Spray.
Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool (< 50°C), dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure aerosol containers/ cans are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for damaged/ leaking containers. Large storage areas should have appropriate fire protection systems.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

| Ingredient | Reference | TWA | | STEL | |
|-------------------------------|-----------|------|-------------------|------|-------------------|
| | | ppm | mg/m ³ | ppm | mg/m ³ |
| Liquefied petroleum gas (LPG) | SWA [AUS] | 1000 | 1800 | 1000 | 1800 |

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable vapours may accumulate in poorly ventilated or confined areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PPE

| | |
|--------------------|---|
| Eye / Face | Wear splash-proof goggles. |
| Hands | Wear nitrile or neoprene gloves. |
| Body | When using large quantities or where heavy contamination is likely, wear coveralls. |
| Respiratory | At high vapour levels, wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator. |



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|----------------------------------|---|
| Appearance | CLEAR COLOURLESS LIQUID (AEROSOL DISPENSED) |
| Odour | SOLVENT ODOUR |
| Flammability | EXTREMELY FLAMMABLE |
| Flash point | < 23°C |
| Boiling point | 67°C |
| Melting point | NOT AVAILABLE |
| Evaporation rate | 15 (n-Butyl acetate = 1) |
| pH | NOT AVAILABLE |
| Vapour density | > 1 (Air = 1) |
| Specific gravity | 0.927 |
| Solubility (water) | INSOLUBLE |
| Vapour pressure | 100 mm Hg @ 20°C |
| Upper explosion limit | 10.7 % |
| Lower explosion limit | 1.3 % |
| Partition coefficient | NOT AVAILABLE |
| Autoignition temperature | 550°C |
| Decomposition temperature | NOT AVAILABLE |
| Viscosity | NOT AVAILABLE |
| Explosive properties | NOT AVAILABLE |
| Oxidising properties | NOT AVAILABLE |
| Odour threshold | NOT AVAILABLE |

9.2 Other information

| | |
|--------------------|------|
| % Volatiles | 97 % |
|--------------------|------|

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| | |
|-------------------------------|--|
| Acute toxicity | Based on available data, the classification criteria are not met. This product may have the potential to cause adverse health effects if intentionally misused (e.g. deliberately inhaling contents). |
| Skin | Not classified as an irritant. Contact may result in mild irritation, drying and defatting of the skin, rash and dermatitis. |
| Eye | Not classified as an eye irritant. Contact may cause discomfort, lacrimation and redness. |
| Sensitisation | Not classified as causing skin or respiratory sensitisation. |
| Mutagenicity | Not classified as a mutagen. |
| Carcinogenicity | Not classified as a carcinogen. |
| Reproductive | Not classified as a reproductive toxin. |
| STOT - single exposure | Not classified as causing organ damage from single exposure. However, over exposure may result in mild irritation of the nose and throat, with coughing. High level exposure may result in dizziness, nausea and headache. |

PRODUCT NAME EXTREME DUTY SILICONE**STOT - repeated exposure** Not classified as causing organ damage from repeated exposure.**Aspiration** Ingestion is considered unlikely due to product form.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information provided.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods**Waste disposal** For small amounts, absorb contents with sand or similar and dispose of to an approved landfill site. Do not puncture or incinerate aerosol cans. Contact the manufacturer/supplier for additional information (if required).**Legislation** Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

| | LAND TRANSPORT (ADG) | SEA TRANSPORT (IMDG / IMO) | AIR TRANSPORT (IATA / ICAO) |
|------------------------------------|----------------------|----------------------------|-----------------------------|
| 14.1 UN Number | 1950 | 1950 | 1950 |
| 14.2 Proper Shipping Name | AEROSOLS | AEROSOLS | AEROSOLS |
| 14.3 Transport hazard class | 2.1 | 2.1 | 2.1 |
| 14.4 Packing Group | None allocated. | None allocated. | None allocated. |

14.5 Environmental hazards

Not a Marine Pollutant.

14.6 Special precautions for user

| | |
|---------------------|----------|
| Hazchem code | 2Y |
| GTEPG | 2D1 |
| EmS | F-D, S-U |

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**Poison schedule** A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

PRODUCT NAME EXTREME DUTY SILICONE

| | |
|---------------------------|--|
| Classifications | Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. |
| Inventory listings | AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals) All components are listed on AIIC, or are exempt. |

16. OTHER INFORMATION

Additional information AEROSOL CANS may explode at temperatures approaching 50°C.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

| | | |
|----------------------|-------------------|---|
| Abbreviations | ACGIH | American Conference of Governmental Industrial Hygienists |
| | CAS # | Chemical Abstract Service number - used to uniquely identify chemical compounds |
| | CNS | Central Nervous System |
| | EC No. | EC No - European Community Number |
| | EMS | Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods) |
| | GHS | Globally Harmonized System |
| | GTEPG | Group Text Emergency Procedure Guide |
| | IARC | International Agency for Research on Cancer |
| | LC50 | Lethal Concentration, 50% / Median Lethal Concentration |
| | LD50 | Lethal Dose, 50% / Median Lethal Dose |
| | mg/m ³ | Milligrams per Cubic Metre |
| | OEL | Occupational Exposure Limit |
| | pH | relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). |
| | ppm | Parts Per Million |
| | STEL | Short-Term Exposure Limit |
| | STOT-RE | Specific target organ toxicity (repeated exposure) |
| | STOT-SE | Specific target organ toxicity (single exposure) |
| | SUSMP | Standard for the Uniform Scheduling of Medicines and Poisons |
| | SWA | Safe Work Australia |
| | TLV | Threshold Limit Value |
| | TWA | Time Weighted Average |

PRODUCT NAME EXTREME DUTY SILICONE

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared by

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[End of SDS]



SAFETY DATA SHEET

Issuing Date November 9, 2015

Revision Date August 8, 2017

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Formula 409® Multi-Surface Cleaner

Other means of identification

EPA Registration Number 5813-73

Recommended use of the chemical and restrictions on use

Recommended Use Multi-purpose spray cleaner and disinfectant

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

| | |
|---------------------------|------------|
| Skin corrosion/irritation | Category 3 |
|---------------------------|------------|

GHS Label elements, including precautionary statements

Emergency Overview

| | |
|---|-----------------------------------|
| Signal word | Warning |
| Hazard statements Causes mild skin irritation | No pictogram required. |
| Appearance Clear | Physical State Thin liquid |
| | Odor Floral, citrus |

Precautionary Statements - Prevention

None

Precautionary Statements - Response

If skin irritation occurs: Get medical advice.

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0.2% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Very toxic to aquatic life with long-lasting effects.

Interactions with Other Chemicals

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % | Trade Secret |
|---|------------|-----------|--------------|
| Lauramine oxide | 1643-20-5 | 0.5 - 1.5 | * |
| n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride | 68424-85-1 | 0.2 - 0.4 | * |

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES**First aid measures**

| | |
|-----------------------|--|
| General Advice | Show this safety data sheet to the doctor in attendance. |
| Eye Contact | Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. |
| Skin Contact | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. |
| Inhalation | Move to fresh air. If breathing is affected, call a doctor. |
| Ingestion | Call a poison control center or doctor immediately for treatment advice. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. |

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects Mild irritation of eyes and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

No information available

Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes and skin.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions See Section 12 for additional ecological Information

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|-----------|----------|------------|
| Lauramine oxide 1643-20-5 | None | None | None |
| n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride 68424-85-1 | None | None | None |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------|---|
| Eye/Face Protection | If splashes are likely to occur, wear safety glasses with side-shields. None required for consumer use. |
| Skin and Body Protection | No special protective equipment required. |
| Respiratory Protection | If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Hygiene Measures | Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes, or clothing. Do not eat, drink, or smoke when using this product. |

| |
|--|
| 9. PHYSICAL AND CHEMICAL PROPERTIES |
|--|

Physical and Chemical Properties

| | | | |
|-----------------------|-------------|-----------------------|--------------------------|
| Physical State | Thin liquid | Odor | Floral, citrus |
| Appearance | Clear | Odor Threshold | No information available |
| Color | Clear | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks/ Method</u> |
|---|----------------------|-------------------------------|
| pH | 9 - 11.5 | None known |
| Melting/freezing point | No data available | None known |
| Boiling Point/Range | No data available | None known |
| Flash Point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limits in Air | | |
| Upper flammability limit | No data available | None known |
| Lower flammability limit | No data available | None known |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Specific Gravity | ~1.0 | None known |
| Water Solubility | Soluble in water. | None known |
| Solubility in other solvents | No data available | None known |
| Partition coefficient: n-octanol/water | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Explosive Properties | Not explosive | |
| Oxidizing Properties | No data available | |

Other Information

| | |
|-----------------------------------|-------------------|
| Softening Point | No data available |
| VOC Content (%) | No data available |
| Particle Size | No data available |
| Particle Size Distribution | No data available |

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known.

Incompatible materials

None known.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

| | |
|---------------------|---|
| Inhalation | Exposure to vapor or mist may irritate respiratory tract. |
| Eye Contact | May cause eye irritation. |
| Skin Contact | Prolonged contact may cause irritation. |
| Ingestion | Ingestion may cause irritation to mucous membranes and gastrointestinal irritation, nausea, vomiting, and diarrhea. |

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes and skin redness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|---------------------------------|--|
| Sensitization | No information available. |
| Mutagenic Effects | No information available. |
| Carcinogenicity | Contains no ingredient listed as a carcinogen. |
| Reproductive Toxicity | No information available |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Chronic Toxicity | No known effect. |
| Target Organ Effects | Respiratory system, eyes, skin, gastrointestinal tract (GI). |
| Aspiration Hazard | No information available. |

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document Not applicable.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

| | |
|-----------------|---------------|
| <u>DOT</u> | Not regulated |
| <u>TDG</u> | Not regulated |
| <u>ICAO</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| <u>IMDG/IMO</u> | Not regulated |

15. REGULATORY INFORMATION

Chemical Inventories

| | |
|-----------------|--|
| TSCA | All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing. |
| DSL/NDSL | All components are on the DSL or NDSL. |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|--|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Avoid contact with foods.

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|--------------------------|------------|---------------|--------------|--------------|----------|
| Ethanolamine 141-43-5 | X | X | X | - | X |

International Regulations**Canada****WHMIS Hazard Class**

D2B Toxic Materials



| |
|------------------------------|
| 16. OTHER INFORMATION |
|------------------------------|

| | | | | |
|--------------------|------------------------|-----------------------|--------------------------|--|
| <u>NFPA</u> | Health Hazard 1 | Flammability 0 | Instability 0 | Physical and Chemical Hazards - |
| <u>HMIS</u> | Health Hazard 1 | Flammability 0 | Physical Hazard 0 | Personal Protection B |

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Preparation Date November 9, 2015

Revision Date August 8, 2017

Revision Note Removal of dye.

Reference XXXXXXXX/166962.001

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet



SAFETY DATA SHEET

Issuing Date November 9, 2015

Revision Date August 8, 2017

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Formula 409® Multi-Surface Cleaner

Other means of identification

EPA Registration Number 5813-73

Recommended use of the chemical and restrictions on use

Recommended Use Multi-purpose spray cleaner and disinfectant

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

| | |
|---------------------------|------------|
| Skin corrosion/irritation | Category 3 |
|---------------------------|------------|

GHS Label elements, including precautionary statements

Emergency Overview

| | |
|---|-----------------------------------|
| Signal word | Warning |
| Hazard statements Causes mild skin irritation | No pictogram required. |
| Appearance Clear | Physical State Thin liquid |
| | Odor Floral, citrus |

Precautionary Statements - Prevention

None

Precautionary Statements - Response

If skin irritation occurs: Get medical advice.

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0.2% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Very toxic to aquatic life with long-lasting effects.

Interactions with Other Chemicals

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % | Trade Secret |
|---|------------|-----------|--------------|
| Lauramine oxide | 1643-20-5 | 0.5 - 1.5 | * |
| n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride | 68424-85-1 | 0.2 - 0.4 | * |

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

| | |
|-----------------------|--|
| General Advice | Show this safety data sheet to the doctor in attendance. |
| Eye Contact | Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. |
| Skin Contact | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. |
| Inhalation | Move to fresh air. If breathing is affected, call a doctor. |
| Ingestion | Call a poison control center or doctor immediately for treatment advice. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. |

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects Mild irritation of eyes and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

No information available

Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes and skin.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions See Section 12 for additional ecological information

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|-----------|----------|------------|
| Lauramine oxide 1643-20-5 | None | None | None |
| n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride 68424-85-1 | None | None | None |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------|---|
| Eye/Face Protection | If splashes are likely to occur, wear safety glasses with side-shields. None required for consumer use. |
| Skin and Body Protection | No special protective equipment required. |
| Respiratory Protection | If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Hygiene Measures | Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes, or clothing. Do not eat, drink, or smoke when using this product. |

| |
|--|
| 9. PHYSICAL AND CHEMICAL PROPERTIES |
|--|

Physical and Chemical Properties

| | | | |
|-----------------------|-------------|-----------------------|--------------------------|
| Physical State | Thin liquid | Odor | Floral, citrus |
| Appearance | Clear | Odor Threshold | No information available |
| Color | Clear | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks/ Method</u> |
|---|----------------------|-------------------------------|
| pH | 9 - 11.5 | None known |
| Melting/freezing point | No data available | None known |
| Boiling Point/Range | No data available | None known |
| Flash Point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limits in Air | | |
| Upper flammability limit | No data available | None known |
| Lower flammability limit | No data available | None known |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Specific Gravity | ~1.0 | None known |
| Water Solubility | Soluble in water. | None known |
| Solubility in other solvents | No data available | None known |
| Partition coefficient: n-octanol/water | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Explosive Properties | Not explosive | |
| Oxidizing Properties | No data available | |

Other Information

| | |
|-----------------------------------|-------------------|
| Softening Point | No data available |
| VOC Content (%) | No data available |
| Particle Size | No data available |
| Particle Size Distribution | No data available |

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known.

Incompatible materials

None known.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|---|
| Inhalation | Exposure to vapor or mist may irritate respiratory tract. |
| Eye Contact | May cause eye irritation. |
| Skin Contact | Prolonged contact may cause irritation. |
| Ingestion | Ingestion may cause irritation to mucous membranes and gastrointestinal irritation, nausea, vomiting, and diarrhea. |

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes and skin redness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|---------------------------------|--|
| Sensitization | No information available. |
| Mutagenic Effects | No information available. |
| Carcinogenicity | Contains no ingredient listed as a carcinogen. |
| Reproductive Toxicity | No information available |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Chronic Toxicity | No known effect. |
| Target Organ Effects | Respiratory system, eyes, skin, gastrointestinal tract (GI). |
| Aspiration Hazard | No information available. |

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document Not applicable.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

| | |
|-----------------|---------------|
| <u>DOT</u> | Not regulated |
| <u>TDG</u> | Not regulated |
| <u>ICAO</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| <u>IMDG/IMO</u> | Not regulated |

15. REGULATORY INFORMATION

Chemical Inventories

| | |
|-----------------|--|
| TSCA | All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing. |
| DSL/NDSL | All components are on the DSL or NDSL. |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|--|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Avoid contact with foods.

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|--------------------------|------------|---------------|--------------|--------------|----------|
| Ethanolamine 141-43-5 | X | X | X | - | X |

International Regulations**Canada****WHMIS Hazard Class**

D2B Toxic Materials



| |
|------------------------------|
| 16. OTHER INFORMATION |
|------------------------------|

| | | | | |
|--------------------|-----------------|----------------|-------------------|--|
| <u>NFPA</u> | Health Hazard 1 | Flammability 0 | Instability 0 | Physical and Chemical Hazards - |
| <u>HMIS</u> | Health Hazard 1 | Flammability 0 | Physical Hazard 0 | Personal Protection B |

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Preparation Date November 9, 2015

Revision Date August 8, 2017

Revision Note Removal of dye.

Reference XXXXXXXX/166962.001

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

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Version 1.1

SDS Number: 400000000198

Revision Date: 02/28/2018

SECTION 1. IDENTIFICATION

Product name : GOJO® ORIGINAL FORMULA™ Hand Cleaner

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : CHEMTREC 1-800-424-9300
CHEMTREC +1-703-527-3887: Outside USA & CANADA**Recommended use of the chemical and restrictions on use**

Recommended use : Skin-care

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.


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Precautionary statements : **Prevention:**
P280 Wear eye protection/ face protection.

Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

| Chemical name | CAS-No. | Concentration (%) |
|-----------------------------------|------------|-------------------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | >= 30 - < 50 |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | >= 10 - < 20 |
| Trideceth-9 | 24938-91-8 | >= 1 - < 5 |
| Propylene Glycol | 57-55-6 | >= 1 - < 5 |
| Petrolatum | 8009-03-8 | >= 1 - < 5 |
| Sodium Hydroxymethylglycinate | 70161-44-3 | >= 0.1 - < 1 |
| Chloroxylonol | 88-04-0 | >= 0.1 - < 1 |

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
If symptoms persist, call a physician.

In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Seek medical advice.

If swallowed : If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.

Most important symptoms and effects, both acute and delayed : Causes serious eye damage.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing


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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : None known.
- Hazardous combustion products : Carbon oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Do not swallow.

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Avoid contact with eyes.
Keep container closed when not in use.

Conditions for safe storage : Keep in properly labelled containers.
Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-----------------------------------|------------|----------------------------------|---|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | TWA (Mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA | 200 mg/m ³ (as total hydrocarbon vapor) | ACGIH |
| | | TWA (Mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (Mist) | 10 mg/m ³ | NIOSH REL |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | TWA (Mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA (Inhalable fraction) | 5 mg/m ³ | ACGIH |
| | | TWA (Mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (Mist) | 10 mg/m ³ | NIOSH REL |
| | | TWA (Mist) | 5 mg/m ³ | OSHA P0 |
| Propylene Glycol | 57-55-6 | TWA | 10 mg/m ³ | US WEEL |
| Petrolatum | 8009-03-8 | TWA (Mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA (Inhalable fraction) | 5 mg/m ³ | ACGIH |
| | | TWA (Mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (Mist) | 10 mg/m ³ | NIOSH REL |
| | | TWA (Mist) | 5 mg/m ³ | OSHA P0 |

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Remarks : No special protective equipment required.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : No special measures necessary provided product is used correctly.

Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to


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the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : opaque, white, yellow

Odour : solvent-like

pH : 9.0, (20 °C)

Melting point/freezing point : No data available

Initial boiling point and boiling range : 98 °C

Flash point : > 100 °C

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : 0.883 g/cm³

Solubility(ies)
Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Thermal decomposition : The substance or mixture is not classified self-reactive.

Viscosity
Viscosity, kinematic : > 100000 mm²/s (20 °C)


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Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Conditions to avoid : No data available

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Inhalation
 Eye contact
 Skin contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
 Method: Calculation method

Components:
C11-15 Alkane/cycloalkane:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity
 Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg
 Assessment: The substance or mixture has no acute dermal toxicity

Mineral Oil (Paraffinum Liquidum):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity

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Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Trideceth-9:

Acute oral toxicity : LD50 (Rat): > 500 - < 2,000 mg/kg

Propylene Glycol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rabbit): > 159 mg/l, > 51091 ppm

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Petrolatum:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Acute oral toxicity : LD50 (Rat): 1,050 mg/kg

Chloroxylenol:

Acute oral toxicity : Acute toxicity estimate : 500 mg/kg
Method: Expert judgement
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute inhalation toxicity : LC50 (Rat): > 6.29 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:**C11-15 Alkane/cycloalkane:**

Assessment: Repeated exposure may cause skin dryness or cracking.

Mineral Oil (Paraffinum Liquidum):

Species: Rabbit

Result: No skin irritation

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Trideceth-9:

Species: Rabbit

Result: No skin irritation

Propylene Glycol:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Petrolatum:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Species: Rabbit

Result: Skin irritation

Chloroxylonol:

Result: Skin irritation

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Serious eye damage/eye irritation

Causes serious eye damage.

Components:**C11-15 Alkane/cycloalkane:**

Species: Rabbit

Result: No eye irritation

Mineral Oil (Paraffinum Liquidum):

Species: Rabbit

Result: No eye irritation

Trideceth-9:

Species: Rabbit

Result: Irreversible effects on the eye

Propylene Glycol:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Petrolatum:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Chloroxylonol:

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Result: Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Product:

Result: Does not cause skin sensitisation.

Remarks: Patch test on human volunteers did not demonstrate sensitisation properties.

Components:**C11-15 Alkane/cycloalkane:**

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Propylene Glycol:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Petrolatum:

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: positive

Assessment: Probability or evidence of skin sensitisation in humans

Chloroxylenol:

Assessment: Probability or evidence of skin sensitisation in humans

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Germ cell mutagenicity

Not classified based on available information.

Components:**C11-15 Alkane/cycloalkane:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)


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Result: negative

Genotoxicity in vivo : Test Type: Chromosomal aberration
 Test species: Rat
 Application Route: Intraperitoneal injection
 Result: negative
 Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
 Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
 Test species: Mouse
 Application Route: Intraperitoneal injection
 Method: OECD Test Guideline 474
 Result: negative
 Remarks: Based on data from similar materials

Propylene Glycol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Test species: Mouse
 Application Route: Intraperitoneal injection
 Result: negative

Petrolatum:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
 Result: negative
 Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
 Test species: Mouse
 Application Route: Intraperitoneal injection
 Method: OECD Test Guideline 474
 Result: negative
 Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
 Test species: Rat
 Result: negative

Chloroxylenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Result: negative

Carcinogenicity


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Not classified based on available information.

Components:
Mineral Oil (Paraffinum Liquidum):

Species: Rat
 Application Route: Ingestion
 Exposure time: 24 Months
 Result: negative

Propylene Glycol:

Species: Rat
 Application Route: Ingestion
 Exposure time: 2 Years
 Result: negative

Petrolatum:

Species: Rat
 Application Route: Ingestion
 Exposure time: 2 Years
 Result: negative

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:
C11-15 Alkane/cycloalkane:

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: Ingestion
 Result: negative
 Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: Ingestion
 Result: negative

Mineral Oil (Paraffinum Liquidum):

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: Skin contact
 Result: negative

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Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Propylene Glycol:
Effects on fertility : Species: Mouse
Application Route: Ingestion
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative

Petrolatum:
Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Skin contact
Result: negative
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:
Effects on foetal development : Species: Rat
Application Route: Ingestion
Result: negative

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity**Components:****C11-15 Alkane/cycloalkane:**

Species: Rat
NOAEL: > 10.4 mg/l
Application Route: inhalation (vapour)
Exposure time: 90 d
Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Species: Rat
LOAEL: 160 mg/kg
Application Route: Ingestion
Exposure time: 90 d


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Species: Rat
 LOAEL: \geq 1 mg/l
 Application Route: inhalation (dust/mist/fume)
 Exposure time: 4 w
 Method: OECD Test Guideline 412

Propylene Glycol:

Species: Rat
 NOAEL: 1,700 mg/kg
 Application Route: Ingestion
 Exposure time: 2 y

Petrolatum:

Species: Rat
 NOAEL: 5,000 mg/kg
 Application Route: Ingestion
 Exposure time: 2 y

Chloroxylenol:

Species: Rabbit
 LOAEL: 180 mg/kg
 Application Route: Skin contact
 Exposure time: 90 d

Aspiration toxicity

Not classified based on available information.

Components:
C11-15 Alkane/cycloalkane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Mineral Oil (Paraffinum Liquidum):

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity
Components:
C11-15 Alkane/cycloalkane:

| | |
|---|--|
| Toxicity to fish | : LL50 (Danio rerio (zebra fish)): > 250 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : EL50 (Acartia tonsa): > 3,193 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction |
| Toxicity to algae | : EL50 (Skeletonema costatum (marine diatom)): > 3,200 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction |


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- NOELR (Skeletonema costatum (marine diatom)): 993 mg/l
 Exposure time: 72 h
 Test substance: Water Accommodated Fraction
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Ceriodaphnia Dubia (water flea)): > 70 mg/l
 Exposure time: 8 d
 Test substance: Water Accommodated Fraction
- Toxicity to bacteria : EC50: > 100 mg/l
 Exposure time: 3 h

Mineral Oil (Paraffinum Liquidum):

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202
- Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (green algae)): 100 mg/l
 Exposure time: 72 h
 Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l
 Exposure time: 28 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1,000 mg/l
 Exposure time: 21 d

Trideceth-9:

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1 - 10 mg/l
 Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50: > 1 - 10 mg/l
 Exposure time: 48 h
- Toxicity to algae : EC50: > 1 - 10 mg/l
 Exposure time: 72 h

Propylene Glycol:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l
 Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia Dubia (water flea)): 18,340 mg/l
 Exposure time: 48 h
- Toxicity to algae : EC50 (Skeletonema costatum (marine diatom)): 19,000 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : Chronic Toxicity Value: 2,500 mg/l
 Exposure time: 30 d


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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia Dubia (water flea)): 29,000 mg/l
Exposure time: 7 d

Toxicity to bacteria : NOEC (Pseudomonas putida): > 20,000 mg/l
Exposure time: 18 h

Petrolatum:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Toxicity to fish : LC50: > 10 - 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): > 10 - 100 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 10 - 100 mg/l
Exposure time: 72 h

Toxicity to bacteria : EC50: > 100 mg/l
Exposure time: 120 h

Chloroxylonol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.7 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

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Persistence and degradability**Components:****C11-15 Alkane/cycloalkane:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 82 %
Exposure time: 24 d
Method: OECD Test Guideline 301F

Mineral Oil (Paraffinum Liquidum):

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d

Trideceth-9:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d

Propylene Glycol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 98.3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Petrolatum:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential**Components:****Propylene Glycol:**

Partition coefficient: n-octanol/water : log Pow: -1.07

Sodium Hydroxymethylglycinate:

Partition coefficient: n-octanol/water : log Pow: < 3

Chloroxyleneol:

Partition coefficient: n-octanol/water : log Pow: 3.27

Mobility in soil

No data available

Other adverse effects

No data available


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Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION
International Regulation**IATA-DGR**

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

National Regulations**49 CFR**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------------|-----------|--------------------|-----------------------------|
| Sodium Hydroxide | 1310-73-2 | 1000 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.


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SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

| | | |
|------------------|---------|----------|
| Propylene Glycol | 57-55-6 | 1.7691 % |
|------------------|---------|----------|

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations
Massachusetts Right To Know

| | | |
|-----------------------------------|------------|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | 30 - 50 % |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | 10 - 20 % |
| Petrolatum | 8009-03-8 | 1 - 5 % |
| Sodium Hydroxymethylglycinate | 70161-44-3 | 0.1 - 1 % |

Pennsylvania Right To Know

| | | |
|-----------------------------------|------------|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | 30 - 50 % |
| Water (Aqua) | 7732-18-5 | 30 - 50 % |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | 10 - 20 % |
| Oleic Acid | 112-80-1 | 5 - 10 % |
| Trideceth-9 | 24938-91-8 | 1 - 5 % |
| Propylene Glycol | 57-55-6 | 1 - 5 % |
| Petrolatum | 8009-03-8 | 1 - 5 % |
| Sodium Hydroxide | 1310-73-2 | 0.1 - 1 % |
| Sodium Hydroxymethylglycinate | 70161-44-3 | 0.1 - 1 % |

New Jersey Right To Know

| | | |
|-----------------------------------|------------|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | 30 - 50 % |
| Water (Aqua) | 7732-18-5 | 30 - 50 % |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | 10 - 20 % |
| Oleic Acid | 112-80-1 | 5 - 10 % |
| Trideceth-9 | 24938-91-8 | 1 - 5 % |
| Propylene Glycol | 57-55-6 | 1 - 5 % |
| Sodium Hydroxymethylglycinate | 70161-44-3 | 0.1 - 1 % |

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

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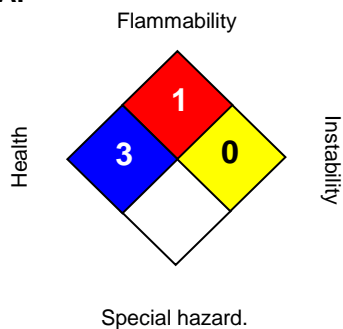
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| | |
|-------|---|
| AICS | : On the inventory, or in compliance with the inventory |
| DSL | : On the inventory, or in compliance with the inventory |
| ENCS | : On the inventory, or in compliance with the inventory |
| ISHL | : On the inventory, or in compliance with the inventory |
| KECI | : On the inventory, or in compliance with the inventory |
| PICCS | : On the inventory, or in compliance with the inventory |
| IECSC | : On the inventory, or in compliance with the inventory |
| NZIoC | : On the inventory, or in compliance with the inventory |

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SECTION 1. IDENTIFICATION

Product name : GOJO® ORIGINAL FORMULA™ Hand Cleaner

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : CHEMTREC 1-800-424-9300
CHEMTREC +1-703-527-3887: Outside USA & CANADA**Recommended use of the chemical and restrictions on use**

Recommended use : Skin-care

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.


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Precautionary statements : **Prevention:**
P280 Wear eye protection/ face protection.

Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

| Chemical name | CAS-No. | Concentration (%) |
|-----------------------------------|------------|-------------------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | >= 30 - < 50 |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | >= 10 - < 20 |
| Trideceth-9 | 24938-91-8 | >= 1 - < 5 |
| Propylene Glycol | 57-55-6 | >= 1 - < 5 |
| Petrolatum | 8009-03-8 | >= 1 - < 5 |
| Sodium Hydroxymethylglycinate | 70161-44-3 | >= 0.1 - < 1 |
| Chloroxylonol | 88-04-0 | >= 0.1 - < 1 |

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
If symptoms persist, call a physician.

In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Seek medical advice.

If swallowed : If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.

Most important symptoms and effects, both acute and delayed : Causes serious eye damage.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing


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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : None known.
- Hazardous combustion products : Carbon oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Do not swallow.

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Avoid contact with eyes.
Keep container closed when not in use.

Conditions for safe storage : Keep in properly labelled containers.
Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-----------------------------------|------------|----------------------------------|---|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | TWA (Mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA | 200 mg/m ³ (as total hydrocarbon vapor) | ACGIH |
| | | TWA (Mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (Mist) | 10 mg/m ³ | NIOSH REL |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | TWA (Mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA (Inhalable fraction) | 5 mg/m ³ | ACGIH |
| | | TWA (Mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (Mist) | 10 mg/m ³ | NIOSH REL |
| | | TWA (Mist) | 5 mg/m ³ | OSHA P0 |
| Propylene Glycol | 57-55-6 | TWA | 10 mg/m ³ | US WEEL |
| Petrolatum | 8009-03-8 | TWA (Mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA (Inhalable fraction) | 5 mg/m ³ | ACGIH |
| | | TWA (Mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (Mist) | 10 mg/m ³ | NIOSH REL |
| | | TWA (Mist) | 5 mg/m ³ | OSHA P0 |

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Remarks : No special protective equipment required.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : No special measures necessary provided product is used correctly.

Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to


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the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : opaque, white, yellow

Odour : solvent-like

pH : 9.0, (20 °C)

Melting point/freezing point : No data available

Initial boiling point and boiling range : 98 °C

Flash point : > 100 °C

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : 0.883 g/cm³

Solubility(ies)
Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Thermal decomposition : The substance or mixture is not classified self-reactive.

Viscosity
Viscosity, kinematic : > 100000 mm²/s (20 °C)


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Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Conditions to avoid : No data available

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Inhalation
 Eye contact
 Skin contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
 Method: Calculation method

Components:
C11-15 Alkane/cycloalkane:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity
 Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg
 Assessment: The substance or mixture has no acute dermal toxicity

Mineral Oil (Paraffinum Liquidum):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity

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Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Trideceth-9:

Acute oral toxicity : LD50 (Rat): > 500 - < 2,000 mg/kg

Propylene Glycol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rabbit): > 159 mg/l, > 51091 ppm

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Petrolatum:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Acute oral toxicity : LD50 (Rat): 1,050 mg/kg

Chloroxylenol:

Acute oral toxicity : Acute toxicity estimate : 500 mg/kg
Method: Expert judgement
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute inhalation toxicity : LC50 (Rat): > 6.29 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:**C11-15 Alkane/cycloalkane:**

Assessment: Repeated exposure may cause skin dryness or cracking.

Mineral Oil (Paraffinum Liquidum):

Species: Rabbit

Result: No skin irritation

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Trideceth-9:

Species: Rabbit

Result: No skin irritation

Propylene Glycol:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Petrolatum:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Species: Rabbit

Result: Skin irritation

Chloroxylonol:

Result: Skin irritation

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Serious eye damage/eye irritation

Causes serious eye damage.

Components:**C11-15 Alkane/cycloalkane:**

Species: Rabbit

Result: No eye irritation

Mineral Oil (Paraffinum Liquidum):

Species: Rabbit

Result: No eye irritation

Trideceth-9:

Species: Rabbit

Result: Irreversible effects on the eye

Propylene Glycol:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Petrolatum:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Chloroxylonol:

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Result: Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Product:

Result: Does not cause skin sensitisation.

Remarks: Patch test on human volunteers did not demonstrate sensitisation properties.

Components:**C11-15 Alkane/cycloalkane:**

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Propylene Glycol:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Petrolatum:

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: positive

Assessment: Probability or evidence of skin sensitisation in humans

Chloroxylenol:

Assessment: Probability or evidence of skin sensitisation in humans

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Germ cell mutagenicity

Not classified based on available information.

Components:**C11-15 Alkane/cycloalkane:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

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Result: negative

Genotoxicity in vivo : Test Type: Chromosomal aberration
Test species: Rat
Application Route: Intraperitoneal injection
Result: negative
Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Propylene Glycol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Petrolatum:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
Test species: Rat
Result: negative

Chloroxylenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Carcinogenicity


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Not classified based on available information.

Components:
Mineral Oil (Paraffinum Liquidum):

Species: Rat
 Application Route: Ingestion
 Exposure time: 24 Months
 Result: negative

Propylene Glycol:

Species: Rat
 Application Route: Ingestion
 Exposure time: 2 Years
 Result: negative

Petrolatum:

Species: Rat
 Application Route: Ingestion
 Exposure time: 2 Years
 Result: negative

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:
C11-15 Alkane/cycloalkane:

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: Ingestion
 Result: negative
 Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: Ingestion
 Result: negative

Mineral Oil (Paraffinum Liquidum):

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: Skin contact
 Result: negative


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Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Propylene Glycol:
Effects on fertility : Species: Mouse
Application Route: Ingestion
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative

Petrolatum:
Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Skin contact
Result: negative
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:
Effects on foetal development : Species: Rat
Application Route: Ingestion
Result: negative

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity**Components:****C11-15 Alkane/cycloalkane:**

Species: Rat
NOAEL: > 10.4 mg/l
Application Route: inhalation (vapour)
Exposure time: 90 d
Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Species: Rat
LOAEL: 160 mg/kg
Application Route: Ingestion
Exposure time: 90 d


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Species: Rat
 LOAEL: \geq 1 mg/l
 Application Route: inhalation (dust/mist/fume)
 Exposure time: 4 w
 Method: OECD Test Guideline 412

Propylene Glycol:

Species: Rat
 NOAEL: 1,700 mg/kg
 Application Route: Ingestion
 Exposure time: 2 y

Petrolatum:

Species: Rat
 NOAEL: 5,000 mg/kg
 Application Route: Ingestion
 Exposure time: 2 y

Chloroxylenol:

Species: Rabbit
 LOAEL: 180 mg/kg
 Application Route: Skin contact
 Exposure time: 90 d

Aspiration toxicity

Not classified based on available information.

Components:
C11-15 Alkane/cycloalkane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Mineral Oil (Paraffinum Liquidum):

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity
Components:
C11-15 Alkane/cycloalkane:

| | |
|---|--|
| Toxicity to fish | : LL50 (Danio rerio (zebra fish)): > 250 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : EL50 (Acartia tonsa): > 3,193 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction |
| Toxicity to algae | : EL50 (Skeletonema costatum (marine diatom)): > 3,200 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction |


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- NOELR (Skeletonema costatum (marine diatom)): 993 mg/l
 Exposure time: 72 h
 Test substance: Water Accommodated Fraction
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Ceriodaphnia Dubia (water flea)): > 70 mg/l
 Exposure time: 8 d
 Test substance: Water Accommodated Fraction
- Toxicity to bacteria : EC50: > 100 mg/l
 Exposure time: 3 h

Mineral Oil (Paraffinum Liquidum):

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202
- Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (green algae)): 100 mg/l
 Exposure time: 72 h
 Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l
 Exposure time: 28 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1,000 mg/l
 Exposure time: 21 d

Trideceth-9:

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1 - 10 mg/l
 Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50: > 1 - 10 mg/l
 Exposure time: 48 h
- Toxicity to algae : EC50: > 1 - 10 mg/l
 Exposure time: 72 h

Propylene Glycol:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l
 Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia Dubia (water flea)): 18,340 mg/l
 Exposure time: 48 h
- Toxicity to algae : EC50 (Skeletonema costatum (marine diatom)): 19,000 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : Chronic Toxicity Value: 2,500 mg/l
 Exposure time: 30 d


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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia Dubia (water flea)): 29,000 mg/l
Exposure time: 7 d

Toxicity to bacteria : NOEC (Pseudomonas putida): > 20,000 mg/l
Exposure time: 18 h

Petrolatum:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Toxicity to fish : LC50: > 10 - 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): > 10 - 100 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 10 - 100 mg/l
Exposure time: 72 h

Toxicity to bacteria : EC50: > 100 mg/l
Exposure time: 120 h

Chloroxylonol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.7 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

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Persistence and degradability**Components:****C11-15 Alkane/cycloalkane:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 82 %
Exposure time: 24 d
Method: OECD Test Guideline 301F

Mineral Oil (Paraffinum Liquidum):

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d

Trideceth-9:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d

Propylene Glycol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 98.3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Petrolatum:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential**Components:****Propylene Glycol:**

Partition coefficient: n-octanol/water : log Pow: -1.07

Sodium Hydroxymethylglycinate:

Partition coefficient: n-octanol/water : log Pow: < 3

Chloroxylonol:

Partition coefficient: n-octanol/water : log Pow: 3.27

Mobility in soil

No data available

Other adverse effects

No data available


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Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION
International Regulation**IATA-DGR**

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

National Regulations**49 CFR**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------------|-----------|--------------------|-----------------------------|
| Sodium Hydroxide | 1310-73-2 | 1000 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.


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SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

| | | |
|------------------|---------|----------|
| Propylene Glycol | 57-55-6 | 1.7691 % |
|------------------|---------|----------|

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations
Massachusetts Right To Know

| | | |
|-----------------------------------|------------|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | 30 - 50 % |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | 10 - 20 % |
| Petrolatum | 8009-03-8 | 1 - 5 % |
| Sodium Hydroxymethylglycinate | 70161-44-3 | 0.1 - 1 % |

Pennsylvania Right To Know

| | | |
|-----------------------------------|------------|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | 30 - 50 % |
| Water (Aqua) | 7732-18-5 | 30 - 50 % |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | 10 - 20 % |
| Oleic Acid | 112-80-1 | 5 - 10 % |
| Trideceth-9 | 24938-91-8 | 1 - 5 % |
| Propylene Glycol | 57-55-6 | 1 - 5 % |
| Petrolatum | 8009-03-8 | 1 - 5 % |
| Sodium Hydroxide | 1310-73-2 | 0.1 - 1 % |
| Sodium Hydroxymethylglycinate | 70161-44-3 | 0.1 - 1 % |

New Jersey Right To Know

| | | |
|-----------------------------------|------------|-----------|
| C11-15 Alkane/cycloalkane | 64742-47-8 | 30 - 50 % |
| Water (Aqua) | 7732-18-5 | 30 - 50 % |
| Mineral Oil (Paraffinum Liquidum) | 8042-47-5 | 10 - 20 % |
| Oleic Acid | 112-80-1 | 5 - 10 % |
| Trideceth-9 | 24938-91-8 | 1 - 5 % |
| Propylene Glycol | 57-55-6 | 1 - 5 % |
| Sodium Hydroxymethylglycinate | 70161-44-3 | 0.1 - 1 % |

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

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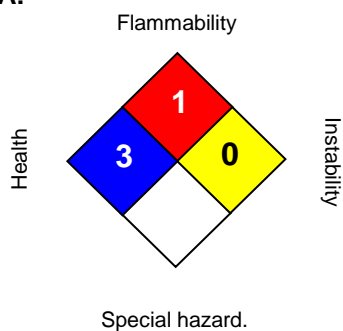
SDS Number: 400000000198

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| | |
|-------|---|
| AICS | : On the inventory, or in compliance with the inventory |
| DSL | : On the inventory, or in compliance with the inventory |
| ENCS | : On the inventory, or in compliance with the inventory |
| ISHL | : On the inventory, or in compliance with the inventory |
| KECI | : On the inventory, or in compliance with the inventory |
| PICCS | : On the inventory, or in compliance with the inventory |
| IECSC | : On the inventory, or in compliance with the inventory |
| NZIoC | : On the inventory, or in compliance with the inventory |

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 02/28/2018

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

Product name: GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC EF

Issue Date: 01/06/2016

Print Date: 01/29/2016

THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC EF

Recommended use of the chemical and restrictions on use

Identified uses: Polyurethane foam.

COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY
2030 WILLARD H DOW CENTER
MIDLAND MI 48674-0000
UNITED STATES

Customer Information Number:

800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: CHEMTREC +1 703-527-3887

Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable aerosols - Category 2

Gases under pressure - Liquefied gas

Acute toxicity - Category 4 - Inhalation

Skin irritation - Category 2

Eye irritation - Category 2B

Respiratory sensitisation - Category 1

Skin sensitisation - Category 1

Effects on or via lactation

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

Flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin and eye irritation.

May cause an allergic skin reaction.

Harmful if inhaled.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

May cause harm to breast-fed children.

May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statements

Prevention

Obtain special instructions before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Avoid contact during pregnancy/ while nursing.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

In case of inadequate ventilation wear respiratory protection.

Response

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/ attention.

If skin irritation or rash occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Polyurethane prepolymer

This product is a mixture.

| Component | CASRN | Concentration |
|---|------------|---------------------|
| Diphenylmethane Diisocyanate, isomers and homologues | 9016-87-9 | >= 10.0 - <= 30.0 % |
| 4,4' -Methylenediphenyl diisocyanate | 101-68-8 | >= 10.0 - <= 30.0 % |
| Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer | 57029-46-6 | >= 10.0 - <= 30.0 % |
| Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer | 53862-89-8 | >= 10.0 - <= 30.0 % |
| Tris(1-chloro-2-propyl) phosphate | 13674-84-5 | >= 5.0 - <= 10.0 % |
| Paraffin waxes and Hydrocarbon waxes, chlorinated | 63449-39-8 | >= 5.0 - <= 10.0 % |
| Isobutane | 75-28-5 | >= 7.0 - <= 13.0 % |
| Methyl ether | 115-10-6 | >= 1.0 - <= 5.0 % |
| Propane | 74-98-6 | >= 1.0 - <= 5.0 % |

Note

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

Eye contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Hydrogen cyanide.

Unusual Fire and Explosion Hazards: Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Vapors are

heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Dense smoke is produced when product burns.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Confined space entry procedures must be followed before entering the area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Ground and bond all containers and handling equipment. Isolate area until gas has dispersed. Use non-sparking tools in cleanup operations. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Collect in suitable and properly labeled containers. Absorb with materials such as: Clay. Dirt. Milsorb®. Sand. Sawdust. Vermiculite. See Section 10 for more specific information. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapor. Never use air pressure for transferring product. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Keep out of reach of children. Vapors are heavier than air and may travel a long distance

and accumulate in low lying areas. Ignition and/or flash back may occur. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. See Section 10 for more specific information.

Storage stability

Storage temperature: 25 °C (77 °F) **Storage Period:** 12 Month

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

| Component | Regulation | Type of listing | Value/Notation |
|--------------------------------------|------------|-----------------|-----------------------|
| 4,4' -Methylenediphenyl diisocyanate | Dow IHG | TWA | 0.005 ppm |
| | Dow IHG | STEL | 0.02 ppm |
| | ACGIH | TWA | 0.005 ppm |
| | OSHA Z-1 | C | 0.2 mg/m3 0.02 ppm |
| | NIOSH REL | TWA | 0.05 mg/m3 0.005 ppm |
| Isobutane | NIOSH REL | C | 0.2 mg/m3 0.02 ppm |
| | ACGIH | STEL | 1,000 ppm |
| Methyl ether | US WEEL | TWA | 1,000 ppm |
| Propane | ACGIH | | Asphyxiant |
| | OSHA Z-1 | TWA | 1,800 mg/m3 1,000 ppm |

This material contains a simple asphyxiant which may displace oxygen. Insure adequate ventilation to prevent an oxygen deficient atmosphere.

The minimum requirement of 19.5% oxygen at sea level (148 torr O2, dry air) provides an adequate amount of oxygen for most work assignments.

Exposure controls

Engineering controls: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove

barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Viton. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--|--|
| Physical state | Foam |
| Color | Yellow |
| Odor | Mild |
| Odor Threshold | No test data available |
| pH | Not applicable |
| Melting point/range | No test data available |
| Freezing point | No test data available |
| Boiling point (760 mmHg) | Not applicable |
| Flash point | closed cup -104 °C (-155 °F) <i>Closed Cup</i> |
| Evaporation Rate (Butyl Acetate = 1) | No test data available |
| Flammability (solid, gas) | No data available |
| Lower explosion limit | No test data available |
| Upper explosion limit | No test data available |
| Vapor Pressure | 1,151 hPa at 55 °C (131 °F) <i>Not reported</i> Container is under pressure. |
| Relative Vapor Density (air = 1) | No test data available |
| Relative Density (water = 1) | 1.06 <i>Estimated.</i> |
| Water solubility | Insoluble |
| Partition coefficient: n-octanol/water | No data available |

| | |
|----------------------------------|------------------------|
| Auto-ignition temperature | No test data available |
| Decomposition temperature | No test data available |
| Kinematic Viscosity | Not applicable |
| Explosive properties | Not explosive |
| Oxidizing properties | No |
| Molecular weight | No test data available |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

Possibility of hazardous reactions: Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Acids.

Conditions to avoid: Avoid temperatures above 50 °C. Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose.

Incompatible materials: Avoid contact with: Acids. Alcohols. Amines. Ammonia. Bases. Metal compounds. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Observations in animals include: Gastrointestinal irritation.

As product: Single dose oral LD50 has not been determined.

LD50, Rat, > 2,000 mg/kg Estimated.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

LD50, Rabbit, > 2,000 mg/kg Estimated.

Acute inhalation toxicity

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Prolonged contact may cause moderate skin irritation with local redness.

Material may stick to skin causing irritation upon removal.

May stain skin.

Serious eye damage/eye irritation

May cause moderate eye irritation.

May cause slight temporary corneal injury.

Sensitization

Skin contact may cause an allergic skin reaction.

Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

May cause allergic respiratory reaction.

MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized.

Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause respiratory irritation.

Route of Exposure: Inhalation

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

Carcinogenicity

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory

irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

Teratogenicity

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

Reproductive toxicity

Based on information for component(s): May cause harm to breastfed babies.

Mutagenicity

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

COMPONENTS INFLUENCING TOXICOLOGY:

Diphenylmethane Diisocyanate, isomers and homologues

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, 0.49 mg/l

For similar material(s): 2,4'-Diphenylmethane diisocyanate (CAS 5873-54-1). LC50, Rat, 4 Hour, Aerosol, 0.31 mg/l

For similar material(s): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8). LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l

4,4' -Methylenediphenyl diisocyanate

Acute inhalation toxicity

LC50, Rat, 1 Hour, dust/mist, 2.24 mg/l

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Acute inhalation toxicity

The LC50 has not been determined.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Acute inhalation toxicity

The LC50 has not been determined.

Tris(1-chloro-2-propyl) phosphate

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, > 7 mg/l

Paraffin waxes and Hydrocarbon waxes, chlorinated

Acute inhalation toxicity

The LC50 has not been determined.

Isobutane

Acute inhalation toxicity

LC50, Mouse, 1 Hour, 52 mg/l

Methyl ether

Acute inhalation toxicity

LC50, Rat, 4 Hour, gas, 164000 ppm

Propane

Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, vapour, > 425000 ppm

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Diphenylmethane Diisocyanate, isomers and homologues

Acute toxicity to fish

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

Toxicity to soil-dwelling organisms

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

Toxicity to terrestrial plants

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

4,4' -Methylenediphenyl diisocyanate

Acute toxicity to fish

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
Based on information for a similar material:
LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

Based on information for a similar material:
EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

Based on information for a similar material:
NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

Based on information for a similar material:
EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

Toxicity to soil-dwelling organisms

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

Toxicity to terrestrial plants

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l
EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Acute toxicity to fish

For this family of materials:
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

Tris(1-chloro-2-propyl) phosphate

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).
LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 84 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 131 mg/l

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), static test, 96 Hour, Growth rate inhibition, 82 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

EC50, activated sludge, Respiration inhibition, 3 Hour, 784 mg/l, OECD 209 Test

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l

LOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, > 32 mg/l

Paraffin waxes and Hydrocarbon waxes, chlorinated

Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 0.1 mg/l

Isobutane

Acute toxicity to fish

No relevant data found.

Methyl ether

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Poecilia reticulata (guppy), semi-static test, 96 Hour, > 4,000 mg/l

Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), 48 Hour, > 4,000 mg/l, OECD Test Guideline 202 or Equivalent

Propane

Acute toxicity to fish

No relevant data found.

Persistence and degradability

Diphenylmethane Diisocyanate, isomers and homologues

Biodegradability: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 302C or Equivalent

4,4' -Methylenediphenyl diisocyanate

Biodegradability: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 302C or Equivalent

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Biodegradability: For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Biodegradability: Expected to degrade slowly in the environment.

Tris(1-chloro-2-propyl) phosphate

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

Biodegradation: 14 %

Exposure time: 28 d

Method: OECD Test Guideline 301E or Equivalent

10-day Window: Not applicable

Biodegradation: 95 %

Exposure time: 64 d

Method: OECD Test Guideline 302A or Equivalent

Theoretical Oxygen Demand: 1.17 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 0.24 d

Method: Estimated.

Paraffin waxes and Hydrocarbon waxes, chlorinated

Biodegradability: Expected to degrade slowly in the environment.

Theoretical Oxygen Demand: 2.89 mg/mg

Isobutane

Biodegradability: Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Theoretical Oxygen Demand: 3.58 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 4.4 d

Method: Estimated.

Methyl ether

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

Biodegradation: 5 %

Exposure time: 28 d

Method: OECD Test Guideline 301A or Equivalent

Theoretical Oxygen Demand: 2.08 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 6.4 d

Method: Estimated.

Propane

Biodegradability: No relevant data found.

Theoretical Oxygen Demand: 3.64 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 8.4 d

Method: Estimated.

Bioaccumulative potential

Diphenylmethane Diisocyanate, isomers and homologues

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d

4,4' -Methylenediphenyl diisocyanate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Bioaccumulation: No relevant data found.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Bioaccumulation: In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Tris(1-chloro-2-propyl) phosphate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.59 Measured

Bioconcentration factor (BCF): 0.8 - 4.6 Cyprinus carpio (Carp) 42 d Measured

Paraffin waxes and Hydrocarbon waxes, chlorinated

Bioaccumulation: Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

Partition coefficient: n-octanol/water(log Pow): 7.4 Estimated.

Isobutane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.76 Measured

Methyl ether

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 0.10 Measured

Propane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 2.36 Measured

Mobility in soil

Diphenylmethane Diisocyanate, isomers and homologues

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

4,4' -Methylenediphenyl diisocyanate

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

No relevant data found.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Tris(1-chloro-2-propyl) phosphate

Potential for mobility in soil is slight (Koc between 2000 and 5000).
Partition coefficient(Koc): 1300 Estimated.

Paraffin waxes and Hydrocarbon waxes, chlorinated

Expected to be relatively immobile in soil (Koc > 5000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient(Koc): > 5000 Estimated.

Isobutane

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 35 Estimated.

Methyl ether

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1.29 - 14 Estimated.

Propane

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 24 - 460 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and

compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

14. TRANSPORT INFORMATION

DOT

| | |
|-----------------------------|----------|
| Proper shipping name | Aerosols |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Reportable Quantity | MDI |

Classification for SEA transport (IMO-IMDG):

| | |
|---|--|
| Proper shipping name | AEROSOLS |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Marine pollutant | Paraffin waxes and Hydrocarbon waxes, chlorinated |
| Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code | Consult IMO regulations before transporting ocean bulk |

Classification for AIR transport (IATA/ICAO):

| | |
|-----------------------------|---------------------|
| Proper shipping name | Aerosols, flammable |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Components

Diphenylmethane Diisocyanate, isomers and homologues
4,4' -Methylenediphenyl diisocyanate

CASRN

9016-87-9
101-68-8

Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components

Isobutane
Methyl ether
Propane

CASRN

75-28-5
115-10-6
74-98-6

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Revision

Identification Number: 101265380 / A001 / Issue Date: 01/06/2016 / Version: 8.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

| | |
|------------|---|
| ACGIH | USA. ACGIH Threshold Limit Values (TLV) |
| Asphyxiant | Asphyxiant |
| C | Ceiling |

| | |
|-----------|--|
| Dow IHG | Dow Industrial Hygiene Guideline |
| NIOSH REL | USA. NIOSH Recommended Exposure Limits |
| OSHA Z-1 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| STEL | Short term exposure limit |
| TWA | Time weighted average |
| US WEEL | USA. Workplace Environmental Exposure Levels (WEEL) |

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

Product name: GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC EF

Issue Date: 01/06/2016

Print Date: 01/29/2016

THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC EF

Recommended use of the chemical and restrictions on use

Identified uses: Polyurethane foam.

COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY
2030 WILLARD H DOW CENTER
MIDLAND MI 48674-0000
UNITED STATES

Customer Information Number:

800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: CHEMTREC +1 703-527-3887

Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable aerosols - Category 2

Gases under pressure - Liquefied gas

Acute toxicity - Category 4 - Inhalation

Skin irritation - Category 2

Eye irritation - Category 2B

Respiratory sensitisation - Category 1

Skin sensitisation - Category 1

Effects on or via lactation

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

Flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin and eye irritation.

May cause an allergic skin reaction.

Harmful if inhaled.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

May cause harm to breast-fed children.

May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statements

Prevention

Obtain special instructions before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Avoid contact during pregnancy/ while nursing.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

In case of inadequate ventilation wear respiratory protection.

Response

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/ attention.

If skin irritation or rash occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Polyurethane prepolymer

This product is a mixture.

| Component | CASRN | Concentration |
|---|------------|---------------------|
| Diphenylmethane Diisocyanate, isomers and homologues | 9016-87-9 | >= 10.0 - <= 30.0 % |
| 4,4' -Methylenediphenyl diisocyanate | 101-68-8 | >= 10.0 - <= 30.0 % |
| Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer | 57029-46-6 | >= 10.0 - <= 30.0 % |
| Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer | 53862-89-8 | >= 10.0 - <= 30.0 % |
| Tris(1-chloro-2-propyl) phosphate | 13674-84-5 | >= 5.0 - <= 10.0 % |
| Paraffin waxes and Hydrocarbon waxes, chlorinated | 63449-39-8 | >= 5.0 - <= 10.0 % |
| Isobutane | 75-28-5 | >= 7.0 - <= 13.0 % |
| Methyl ether | 115-10-6 | >= 1.0 - <= 5.0 % |
| Propane | 74-98-6 | >= 1.0 - <= 5.0 % |

Note

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

Eye contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Hydrogen cyanide.

Unusual Fire and Explosion Hazards: Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Vapors are

heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Dense smoke is produced when product burns.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Confined space entry procedures must be followed before entering the area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Ground and bond all containers and handling equipment. Isolate area until gas has dispersed. Use non-sparking tools in cleanup operations. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Collect in suitable and properly labeled containers. Absorb with materials such as: Clay. Dirt. Milsorb®. Sand. Sawdust. Vermiculite. See Section 10 for more specific information. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapor. Never use air pressure for transferring product. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Keep out of reach of children. Vapors are heavier than air and may travel a long distance

and accumulate in low lying areas. Ignition and/or flash back may occur. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. See Section 10 for more specific information.

Storage stability

Storage temperature: 25 °C (77 °F) **Storage Period:** 12 Month

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

| Component | Regulation | Type of listing | Value/Notation |
|--------------------------------------|------------|-----------------|-----------------------|
| 4,4' -Methylenediphenyl diisocyanate | Dow IHG | TWA | 0.005 ppm |
| | Dow IHG | STEL | 0.02 ppm |
| | ACGIH | TWA | 0.005 ppm |
| | OSHA Z-1 | C | 0.2 mg/m3 0.02 ppm |
| | NIOSH REL | TWA | 0.05 mg/m3 0.005 ppm |
| Isobutane | NIOSH REL | C | 0.2 mg/m3 0.02 ppm |
| | ACGIH | STEL | 1,000 ppm |
| Methyl ether | US WEEL | TWA | 1,000 ppm |
| Propane | ACGIH | | Asphyxiant |
| | OSHA Z-1 | TWA | 1,800 mg/m3 1,000 ppm |

This material contains a simple asphyxiant which may displace oxygen. Insure adequate ventilation to prevent an oxygen deficient atmosphere.

The minimum requirement of 19.5% oxygen at sea level (148 torr O2, dry air) provides an adequate amount of oxygen for most work assignments.

Exposure controls

Engineering controls: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove

barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Viton. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--|--|
| Physical state | Foam |
| Color | Yellow |
| Odor | Mild |
| Odor Threshold | No test data available |
| pH | Not applicable |
| Melting point/range | No test data available |
| Freezing point | No test data available |
| Boiling point (760 mmHg) | Not applicable |
| Flash point | closed cup -104 °C (-155 °F) <i>Closed Cup</i> |
| Evaporation Rate (Butyl Acetate = 1) | No test data available |
| Flammability (solid, gas) | No data available |
| Lower explosion limit | No test data available |
| Upper explosion limit | No test data available |
| Vapor Pressure | 1,151 hPa at 55 °C (131 °F) <i>Not reported</i> Container is under pressure. |
| Relative Vapor Density (air = 1) | No test data available |
| Relative Density (water = 1) | 1.06 <i>Estimated.</i> |
| Water solubility | Insoluble |
| Partition coefficient: n-octanol/water | No data available |

| | |
|----------------------------------|------------------------|
| Auto-ignition temperature | No test data available |
| Decomposition temperature | No test data available |
| Kinematic Viscosity | Not applicable |
| Explosive properties | Not explosive |
| Oxidizing properties | No |
| Molecular weight | No test data available |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

Possibility of hazardous reactions: Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Acids.

Conditions to avoid: Avoid temperatures above 50 °C. Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose.

Incompatible materials: Avoid contact with: Acids. Alcohols. Amines. Ammonia. Bases. Metal compounds. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Observations in animals include: Gastrointestinal irritation.

As product: Single dose oral LD50 has not been determined.

LD50, Rat, > 2,000 mg/kg Estimated.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

LD50, Rabbit, > 2,000 mg/kg Estimated.

Acute inhalation toxicity

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Prolonged contact may cause moderate skin irritation with local redness.

Material may stick to skin causing irritation upon removal.

May stain skin.

Serious eye damage/eye irritation

May cause moderate eye irritation.

May cause slight temporary corneal injury.

Sensitization

Skin contact may cause an allergic skin reaction.

Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

May cause allergic respiratory reaction.

MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized.

Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause respiratory irritation.

Route of Exposure: Inhalation

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

Carcinogenicity

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory

irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

Teratogenicity

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

Reproductive toxicity

Based on information for component(s): May cause harm to breastfed babies.

Mutagenicity

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

COMPONENTS INFLUENCING TOXICOLOGY:

Diphenylmethane Diisocyanate, isomers and homologues

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, 0.49 mg/l

For similar material(s): 2,4'-Diphenylmethane diisocyanate (CAS 5873-54-1). LC50, Rat, 4 Hour, Aerosol, 0.31 mg/l

For similar material(s): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8). LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l

4,4' -Methylenediphenyl diisocyanate

Acute inhalation toxicity

LC50, Rat, 1 Hour, dust/mist, 2.24 mg/l

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Acute inhalation toxicity

The LC50 has not been determined.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Acute inhalation toxicity

The LC50 has not been determined.

Tris(1-chloro-2-propyl) phosphate

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, > 7 mg/l

Paraffin waxes and Hydrocarbon waxes, chlorinated

Acute inhalation toxicity

The LC50 has not been determined.

Isobutane

Acute inhalation toxicity

LC50, Mouse, 1 Hour, 52 mg/l

Methyl ether

Acute inhalation toxicity

LC50, Rat, 4 Hour, gas, 164000 ppm

Propane

Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, vapour, > 425000 ppm

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Diphenylmethane Diisocyanate, isomers and homologues

Acute toxicity to fish

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

Toxicity to soil-dwelling organisms

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

Toxicity to terrestrial plants

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

4,4' -Methylenediphenyl diisocyanate

Acute toxicity to fish

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
Based on information for a similar material:
LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

Based on information for a similar material:
EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

Based on information for a similar material:
NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

Based on information for a similar material:
EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

Toxicity to soil-dwelling organisms

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

Toxicity to terrestrial plants

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l
EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Acute toxicity to fish

For this family of materials:
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

Tris(1-chloro-2-propyl) phosphate

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).
LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 84 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 131 mg/l

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), static test, 96 Hour, Growth rate inhibition, 82 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

EC50, activated sludge, Respiration inhibition, 3 Hour, 784 mg/l, OECD 209 Test

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l

LOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, > 32 mg/l

Paraffin waxes and Hydrocarbon waxes, chlorinated

Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 0.1 mg/l

Isobutane

Acute toxicity to fish

No relevant data found.

Methyl ether

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Poecilia reticulata (guppy), semi-static test, 96 Hour, > 4,000 mg/l

Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), 48 Hour, > 4,000 mg/l, OECD Test Guideline 202 or Equivalent

Propane

Acute toxicity to fish

No relevant data found.

Persistence and degradability

Diphenylmethane Diisocyanate, isomers and homologues

Biodegradability: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 302C or Equivalent

4,4' -Methylenediphenyl diisocyanate

Biodegradability: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 302C or Equivalent

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Biodegradability: For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Biodegradability: Expected to degrade slowly in the environment.

Tris(1-chloro-2-propyl) phosphate

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

Biodegradation: 14 %

Exposure time: 28 d

Method: OECD Test Guideline 301E or Equivalent

10-day Window: Not applicable

Biodegradation: 95 %

Exposure time: 64 d

Method: OECD Test Guideline 302A or Equivalent

Theoretical Oxygen Demand: 1.17 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 0.24 d

Method: Estimated.

Paraffin waxes and Hydrocarbon waxes, chlorinated

Biodegradability: Expected to degrade slowly in the environment.

Theoretical Oxygen Demand: 2.89 mg/mg

Isobutane

Biodegradability: Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Theoretical Oxygen Demand: 3.58 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 4.4 d

Method: Estimated.

Methyl ether

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

Biodegradation: 5 %

Exposure time: 28 d

Method: OECD Test Guideline 301A or Equivalent

Theoretical Oxygen Demand: 2.08 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 6.4 d

Method: Estimated.

Propane

Biodegradability: No relevant data found.

Theoretical Oxygen Demand: 3.64 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 8.4 d

Method: Estimated.

Bioaccumulative potential

Diphenylmethane Diisocyanate, isomers and homologues

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d

4,4' -Methylenediphenyl diisocyanate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Bioaccumulation: No relevant data found.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Bioaccumulation: In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Tris(1-chloro-2-propyl) phosphate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.59 Measured

Bioconcentration factor (BCF): 0.8 - 4.6 Cyprinus carpio (Carp) 42 d Measured

Paraffin waxes and Hydrocarbon waxes, chlorinated

Bioaccumulation: Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

Partition coefficient: n-octanol/water(log Pow): 7.4 Estimated.

Isobutane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.76 Measured

Methyl ether

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 0.10 Measured

Propane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 2.36 Measured

Mobility in soil

Diphenylmethane Diisocyanate, isomers and homologues

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

4,4' -Methylenediphenyl diisocyanate

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

No relevant data found.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Tris(1-chloro-2-propyl) phosphate

Potential for mobility in soil is slight (Koc between 2000 and 5000).
Partition coefficient(Koc): 1300 Estimated.

Paraffin waxes and Hydrocarbon waxes, chlorinated

Expected to be relatively immobile in soil (Koc > 5000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient(Koc): > 5000 Estimated.

Isobutane

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 35 Estimated.

Methyl ether

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1.29 - 14 Estimated.

Propane

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 24 - 460 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and

compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

14. TRANSPORT INFORMATION

DOT

| | |
|-----------------------------|----------|
| Proper shipping name | Aerosols |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Reportable Quantity | MDI |

Classification for SEA transport (IMO-IMDG):

| | |
|---|--|
| Proper shipping name | AEROSOLS |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Marine pollutant | Paraffin waxes and Hydrocarbon waxes, chlorinated |
| Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code | Consult IMO regulations before transporting ocean bulk |

Classification for AIR transport (IATA/ICAO):

| | |
|-----------------------------|---------------------|
| Proper shipping name | Aerosols, flammable |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Components

Diphenylmethane Diisocyanate, isomers and homologues
4,4' -Methylenediphenyl diisocyanate

CASRN

9016-87-9
101-68-8

Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components

Isobutane
Methyl ether
Propane

CASRN

75-28-5
115-10-6
74-98-6

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Revision

Identification Number: 101265380 / A001 / Issue Date: 01/06/2016 / Version: 8.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

| | |
|------------|---|
| ACGIH | USA. ACGIH Threshold Limit Values (TLV) |
| Asphyxiant | Asphyxiant |
| C | Ceiling |

| | |
|-----------|--|
| Dow IHG | Dow Industrial Hygiene Guideline |
| NIOSH REL | USA. NIOSH Recommended Exposure Limits |
| OSHA Z-1 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| STEL | Short term exposure limit |
| TWA | Time weighted average |
| US WEEL | USA. Workplace Environmental Exposure Levels (WEEL) |

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

Product name: GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC ES STW 12ct

Issue Date: 01/06/2016

Print Date: 06/16/2016

THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC ES STW 12ct

Recommended use of the chemical and restrictions on use

Identified uses: Polyurethane foam.

COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY
2030 WILLARD H DOW CENTER
MIDLAND MI 48674-0000
UNITED STATES

Customer Information Number:

800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: CHEMTREC +1 800-424-9300

Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable aerosols - Category 2

Gases under pressure - Liquefied gas

Acute toxicity - Category 4 - Inhalation

Skin irritation - Category 2

Eye irritation - Category 2B

Respiratory sensitisation - Category 1

Skin sensitisation - Category 1

Effects on or via lactation

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

Flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin and eye irritation.

May cause an allergic skin reaction.

Harmful if inhaled.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

May cause harm to breast-fed children.

May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statements

Prevention

Obtain special instructions before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Avoid contact during pregnancy/ while nursing.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

In case of inadequate ventilation wear respiratory protection.

Response

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/ attention.

If skin irritation or rash occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Polyurethane prepolymer

This product is a mixture.

| Component | CASRN | Concentration |
|---|------------|---------------------|
| Diphenylmethane Diisocyanate, isomers and homologues | 9016-87-9 | >= 10.0 - <= 30.0 % |
| 4,4' -Methylenediphenyl diisocyanate | 101-68-8 | >= 10.0 - <= 30.0 % |
| Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer | 57029-46-6 | >= 10.0 - <= 30.0 % |
| Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer | 53862-89-8 | >= 10.0 - <= 30.0 % |
| Tris(1-chloro-2-propyl) phosphate | 13674-84-5 | >= 5.0 - <= 10.0 % |
| Paraffin waxes and Hydrocarbon waxes, chlorinated | 63449-39-8 | >= 5.0 - <= 10.0 % |
| Isobutane | 75-28-5 | >= 7.0 - <= 13.0 % |
| Methyl ether | 115-10-6 | >= 1.0 - <= 5.0 % |
| Propane | 74-98-6 | >= 1.0 - <= 5.0 % |

Note

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

Eye contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Hydrogen cyanide.

Unusual Fire and Explosion Hazards: Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Vapors are

heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Dense smoke is produced when product burns.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Confined space entry procedures must be followed before entering the area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Ground and bond all containers and handling equipment. Isolate area until gas has dispersed. Use non-sparking tools in cleanup operations. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Collect in suitable and properly labeled containers. Absorb with materials such as: Clay. Dirt. Milsorb®. Sand. Sawdust. Vermiculite. See Section 10 for more specific information. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapor. Never use air pressure for transferring product. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Keep out of reach of children. Vapors are heavier than air and may travel a long distance

and accumulate in low lying areas. Ignition and/or flash back may occur. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. See Section 10 for more specific information.

Storage stability

Storage temperature: 25 °C (77 °F) **Storage Period:** 12 Month

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

| Component | Regulation | Type of listing | Value/Notation |
|--------------------------------------|------------|-----------------|-----------------------|
| 4,4' -Methylenediphenyl diisocyanate | Dow IHG | TWA | 0.005 ppm |
| | Dow IHG | STEL | 0.02 ppm |
| | ACGIH | TWA | 0.005 ppm |
| | OSHA Z-1 | C | 0.2 mg/m3 0.02 ppm |
| | NIOSH REL | TWA | 0.05 mg/m3 0.005 ppm |
| Isobutane | NIOSH REL | C | 0.2 mg/m3 0.02 ppm |
| | ACGIH | STEL | 1,000 ppm |
| Methyl ether | US WEEL | TWA | 1,000 ppm |
| Propane | ACGIH | | Asphyxiant |
| | OSHA Z-1 | TWA | 1,800 mg/m3 1,000 ppm |

This material contains a simple asphyxiant which may displace oxygen. Insure adequate ventilation to prevent an oxygen deficient atmosphere.

The minimum requirement of 19.5% oxygen at sea level (148 torr O2, dry air) provides an adequate amount of oxygen for most work assignments.

Exposure controls

Engineering controls: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove

barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Viton. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--|--|
| Physical state | Foam |
| Color | Yellow |
| Odor | Mild |
| Odor Threshold | No test data available |
| pH | Not applicable |
| Melting point/range | No test data available |
| Freezing point | No test data available |
| Boiling point (760 mmHg) | Not applicable |
| Flash point | closed cup -104 °C (-155 °F) <i>Closed Cup</i> |
| Evaporation Rate (Butyl Acetate = 1) | No test data available |
| Flammability (solid, gas) | No data available |
| Lower explosion limit | No test data available |
| Upper explosion limit | No test data available |
| Vapor Pressure | 1,151 hPa at 55 °C (131 °F) <i>Not reported</i> Container is under pressure. |
| Relative Vapor Density (air = 1) | No test data available |
| Relative Density (water = 1) | 1.06 <i>Estimated.</i> |
| Water solubility | Insoluble |
| Partition coefficient: n-octanol/water | No data available |

| | |
|----------------------------------|------------------------|
| Auto-ignition temperature | No test data available |
| Decomposition temperature | No test data available |
| Kinematic Viscosity | Not applicable |
| Explosive properties | Not explosive |
| Oxidizing properties | No |
| Molecular weight | No test data available |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

Possibility of hazardous reactions: Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Acids.

Conditions to avoid: Avoid temperatures above 50 °C. Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose.

Incompatible materials: Avoid contact with: Acids. Alcohols. Amines. Ammonia. Bases. Metal compounds. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Observations in animals include: Gastrointestinal irritation.

As product: Single dose oral LD50 has not been determined.

LD50, Rat, > 2,000 mg/kg Estimated.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

LD50, Rabbit, > 2,000 mg/kg Estimated.

Acute inhalation toxicity

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Prolonged contact may cause moderate skin irritation with local redness.

Material may stick to skin causing irritation upon removal.

May stain skin.

Serious eye damage/eye irritation

May cause moderate eye irritation.

May cause slight temporary corneal injury.

Sensitization

Skin contact may cause an allergic skin reaction.

Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

May cause allergic respiratory reaction.

MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized.

Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause respiratory irritation.

Route of Exposure: Inhalation

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

Carcinogenicity

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory

irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

Teratogenicity

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

Reproductive toxicity

Based on information for component(s): May cause harm to breastfed babies.

Mutagenicity

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

COMPONENTS INFLUENCING TOXICOLOGY:

Diphenylmethane Diisocyanate, isomers and homologues

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, 0.49 mg/l

For similar material(s): 2,4'-Diphenylmethane diisocyanate (CAS 5873-54-1). LC50, Rat, 4 Hour, Aerosol, 0.31 mg/l

For similar material(s): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8). LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l

4,4' -Methylenediphenyl diisocyanate

Acute inhalation toxicity

LC50, Rat, 1 Hour, dust/mist, 2.24 mg/l

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Acute inhalation toxicity

The LC50 has not been determined.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Acute inhalation toxicity

The LC50 has not been determined.

Tris(1-chloro-2-propyl) phosphate

Acute inhalation toxicity

LC50, Rat, 4 Hour, dust/mist, > 7 mg/l

Paraffin waxes and Hydrocarbon waxes, chlorinated

Acute inhalation toxicity

The LC50 has not been determined.

Isobutane

Acute inhalation toxicity

LC50, Mouse, 1 Hour, 52 mg/l

Methyl ether

Acute inhalation toxicity

LC50, Rat, 4 Hour, gas, 164000 ppm

Propane

Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, vapour, > 425000 ppm

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Diphenylmethane Diisocyanate, isomers and homologues

Acute toxicity to fish

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

Toxicity to soil-dwelling organisms

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

Toxicity to terrestrial plants

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

4,4' -Methylenediphenyl diisocyanate

Acute toxicity to fish

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

Toxicity to soil-dwelling organisms

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

Toxicity to terrestrial plants

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Acute toxicity to fish

For this family of materials:

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

Tris(1-chloro-2-propyl) phosphate

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 84 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 131 mg/l

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), static test, 96 Hour, Growth rate inhibition, 82 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

EC50, activated sludge, Respiration inhibition, 3 Hour, 784 mg/l, OECD 209 Test

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l

LOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, > 32 mg/l

Paraffin waxes and Hydrocarbon waxes, chlorinated

Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 0.1 mg/l

Isobutane

Acute toxicity to fish

No relevant data found.

Methyl ether

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Poecilia reticulata (guppy), semi-static test, 96 Hour, > 4,000 mg/l

Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), 48 Hour, > 4,000 mg/l, OECD Test Guideline 202 or Equivalent

Propane

Acute toxicity to fish

No relevant data found.

Persistence and degradability

Diphenylmethane Diisocyanate, isomers and homologues

Biodegradability: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 302C or Equivalent

4,4' -Methylenediphenyl diisocyanate

Biodegradability: In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 302C or Equivalent

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Biodegradability: For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Biodegradability: Expected to degrade slowly in the environment.

Tris(1-chloro-2-propyl) phosphate

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

Biodegradation: 14 %

Exposure time: 28 d

Method: OECD Test Guideline 301E or Equivalent

10-day Window: Not applicable

Biodegradation: 95 %

Exposure time: 64 d

Method: OECD Test Guideline 302A or Equivalent

Theoretical Oxygen Demand: 1.17 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 0.24 d

Method: Estimated.

Paraffin waxes and Hydrocarbon waxes, chlorinated

Biodegradability: Expected to degrade slowly in the environment.

Theoretical Oxygen Demand: 2.89 mg/mg

Isobutane

Biodegradability: Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Theoretical Oxygen Demand: 3.58 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 4.4 d

Method: Estimated.

Methyl ether

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

Biodegradation: 5 %

Exposure time: 28 d

Method: OECD Test Guideline 301A or Equivalent

Theoretical Oxygen Demand: 2.08 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 6.4 d

Method: Estimated.

Propane

Biodegradability: No relevant data found.

Theoretical Oxygen Demand: 3.64 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 8.4 d

Method: Estimated.

Bioaccumulative potential

Diphenylmethane Diisocyanate, isomers and homologues

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d

4,4' -Methylenediphenyl diisocyanate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

Bioaccumulation: No relevant data found.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

Bioaccumulation: In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Tris(1-chloro-2-propyl) phosphate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.59 Measured

Bioconcentration factor (BCF): 0.8 - 4.6 Cyprinus carpio (Carp) 42 d Measured

Paraffin waxes and Hydrocarbon waxes, chlorinated

Bioaccumulation: Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

Partition coefficient: n-octanol/water(log Pow): 7.4 Estimated.

Isobutane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.76 Measured

Methyl ether

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 0.10 Measured

Propane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 2.36 Measured

Mobility in soil

Diphenylmethane Diisocyanate, isomers and homologues

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

4,4' -Methylenediphenyl diisocyanate

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

No relevant data found.

Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Tris(1-chloro-2-propyl) phosphate

Potential for mobility in soil is slight (Koc between 2000 and 5000).
Partition coefficient(Koc): 1300 Estimated.

Paraffin waxes and Hydrocarbon waxes, chlorinated

Expected to be relatively immobile in soil (Koc > 5000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Partition coefficient(Koc): > 5000 Estimated.

Isobutane

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 35 Estimated.

Methyl ether

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1.29 - 14 Estimated.

Propane

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 24 - 460 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and

compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

14. TRANSPORT INFORMATION

DOT

| | |
|-----------------------------|----------|
| Proper shipping name | Aerosols |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Reportable Quantity | MDI |

Classification for SEA transport (IMO-IMDG):

| | |
|---|--|
| Proper shipping name | AEROSOLS |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Marine pollutant | Paraffin waxes and Hydrocarbon waxes, chlorinated |
| Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code | Consult IMO regulations before transporting ocean bulk |

Classification for AIR transport (IATA/ICAO):

| | |
|-----------------------------|---------------------|
| Proper shipping name | Aerosols, flammable |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Components

Diphenylmethane Diisocyanate, isomers and homologues
4,4' -Methylenediphenyl diisocyanate

CASRN

9016-87-9
101-68-8

Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components

Isobutane
Methyl ether
Propane

CASRN

75-28-5
115-10-6
74-98-6

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Revision

Identification Number: 101265380 / A001 / Issue Date: 01/06/2016 / Version: 8.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

| | |
|------------|---|
| ACGIH | USA. ACGIH Threshold Limit Values (TLV) |
| Asphyxiant | Asphyxiant |
| C | Ceiling |

| | |
|-----------|--|
| Dow IHG | Dow Industrial Hygiene Guideline |
| NIOSH REL | USA. NIOSH Recommended Exposure Limits |
| OSHA Z-1 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| STEL | Short term exposure limit |
| TWA | Time weighted average |
| US WEEL | USA. Workplace Environmental Exposure Levels (WEEL) |

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

Product name: GREAT STUFF PRO™ Gun Cleaner 12oz HC 12ct

Issue Date: 04/13/2016

Print Date: 06/16/2016

THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: GREAT STUFF PRO™ Gun Cleaner 12oz HC 12ct

Recommended use of the chemical and restrictions on use

Identified uses: Cleaner. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY
2030 WILLARD H DOW CENTER
MIDLAND MI 48674-0000
UNITED STATES

Customer Information Number:

800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: CHEMTREC +1 800-424-9300

Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable aerosols - Category 1

Gases under pressure - Liquefied gas

Eye irritation - Category 2A

Specific target organ toxicity - single exposure - Category 3

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.

Precautionary statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.
 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 Wash skin thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear eye protection/ face protection.

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/ attention.

Storage

Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

| Component | CASRN | Concentration |
|-----------|---------|----------------------|
| Acetone | 67-64-1 | >= 60.0 - <= 100.0 % |

Propane

74-98-6

>= 10.0 - <= 30.0 %

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Wash off with plenty of water.

Eye contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Skin contact may aggravate preexisting dermatitis. Maintain adequate ventilation and oxygenation of the patient. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Container may vent and/or rupture due to fire. Electrically ground and bond all equipment. Flammable mixtures of this product are readily ignited even by static discharge. Vaporizes quickly at room temperature.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Warning - flashback potential.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Confined space entry procedures must be followed before entering the area. For large spills, warn public of downwind explosion hazard. Vapor explosion hazard. Keep out of sewers. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Absorb with materials such as: Dirt. Sand. Sawdust. Pump with explosion-proof equipment. If available, use foam to smother or suppress. Collect in suitable and properly labeled containers. Wash the spill site with water. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not swallow. Avoid contact with eyes. Wash thoroughly after handling. Avoid breathing vapor. Use only with adequate ventilation. Keep container closed. No smoking, open flames or sources of ignition in handling and storage area. Ignition sources can include and are not limited to pilot lights, flames, smoking, sparks, heaters, electrical equipment, and static discharges. Electrically bond and ground all containers and equipment before transfer or use of material. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. Do not enter confined spaces unless adequately ventilated.

This material is hygroscopic in nature. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

Conditions for safe storage: Protect from atmospheric moisture. Store in a dry place. Avoid prolonged exposure to heat and air. Store in the following material(s): Carbon steel. Stainless steel. Polypropylene. Polyethylene-lined container. Teflon. Glass-lined container. Aluminum. Plasite 3066 lined container. Plasite 3070 lined container. 316 stainless steel. Store away from direct sunlight. Keep away from sources of ignition - No smoking. Store in a cool, dry place. Keep container closed. Minimize sources of ignition, such as static build-up, heat, spark or flame. See Section 10 for more specific information.

Storage stability

Storage Period:
36 Month

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

| Component | Regulation | Type of listing | Value/Notation |
|-----------|------------|-----------------|-----------------------|
| Acetone | Dow IHG | TWA | 200 ppm |
| | Dow IHG | STEL | 350 ppm |
| | ACGIH | TWA | 250 ppm |
| | ACGIH | STEL | 500 ppm |
| | ACGIH | TWA | BEI |
| | OSHA Z-1 | TWA | 2,400 mg/m3 1,000 ppm |
| | ACGIH | STEL | BEI |
| | CAL PEL | STEL | 1,780 mg/m3 750 ppm |
| | CAL PEL | C | 3,000 ppm |
| | CAL PEL | PEL | 1,200 mg/m3 500 ppm |
| Propane | ACGIH | | Asphyxiant |
| | OSHA Z-1 | TWA | 1,800 mg/m3 1,000 ppm |
| | CAL PEL | PEL | 1,800 mg/m3 1,000 ppm |

Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only in enclosed systems or with local exhaust ventilation. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures

Eye/face protection: Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier

materials include: Natural rubber ("latex"). Neoprene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Wear clean, body-covering clothing.

Respiratory protection: Atmospheric levels should be maintained below the exposure guideline.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--|---|
| Physical state | Liquid. |
| Color | Colorless |
| Odor | Mild |
| Odor Threshold | No test data available |
| pH | No test data available |
| Melting point/range | No test data available |
| Freezing point | No test data available |
| Boiling point (760 mmHg) | No test data available |
| Flash point | closed cup Flammable |
| Evaporation Rate (Butyl Acetate = 1) | No test data available |
| Flammability (solid, gas) | No data available |
| Lower explosion limit | 2.1 % vol <i>Vendor</i> |
| Upper explosion limit | 8.5 % vol <i>Vendor</i> (propane) |
| Vapor Pressure | 4,482 hPa <i>Vendor</i> |
| Relative Vapor Density (air = 1) | greater than air |
| Relative Density (water = 1) | 0.87 at 20 °C (68 °F) / 20 °C <i>Vendor</i> |
| Water solubility | Complete |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | 450 °C (842 °F) <i>Estimated.</i> |
| Decomposition temperature | No test data available |
| Kinematic Viscosity | No test data available |
| Explosive properties | Not explosive |
| Oxidizing properties | No |
| Molecular weight | No test data available |
| Volatile Organic Compounds | 50.8 g/L 10 WT% <i>Supplier</i> |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Elevated temperatures can cause container to vent and/or rupture. Avoid static discharge.

Incompatible materials: Avoid contact with: Acids. Bases. Oxidizers.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.
LD50, Rat, > 5,000 mg/kg Estimated.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.
LD50, Rabbit, > 2,000 mg/kg Estimated.

Acute inhalation toxicity

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). May cause central nervous system effects. At air concentrations <1000 ppm, propane exerts very little physiological action; at 100,000 ppm and above it may produce dizziness or other central nervous system effects. Excessive exposure may cause headache, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Essentially nonirritating to skin.

May cause drying and flaking of the skin.

Serious eye damage/eye irritation

May cause severe eye irritation.

May cause slight corneal injury.

Effects may be slow to heal.

Vapor may cause eye irritation experienced as mild discomfort and redness.

Sensitization

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause drowsiness or dizziness.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Contains component(s) which have been reported to cause effects on the following organs in animals:

Blood.

Kidney.

Liver.

Development of cataracts has been reported in laboratory animals after prolonged repeated skin exposure to acetone.

Carcinogenicity

No relevant data found.

Teratogenicity

Contains component(s) which, in laboratory animals, have been toxic to the fetus only at doses toxic to the mother.

Reproductive toxicity

For the major component(s): In animal studies, did not interfere with reproduction.

Mutagenicity

Genetic toxicity studies on tested components were predominantly negative.

Aspiration Hazard

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

COMPONENTS INFLUENCING TOXICOLOGY:

Acetone

Acute inhalation toxicity

LC50, Rat, 4 Hour, vapour, 76 mg/l

Propane

Acute inhalation toxicity

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats).

May cause central nervous system effects. At air concentrations <1000 ppm, propane exerts very little physiological action; at 100,000 ppm and above it may produce dizziness or other central nervous system effects. Excessive exposure may cause headache, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. Based on the available data, respiratory irritation was not observed.

LC50, Rat, male and female, 4 Hour, vapour, > 425000 ppm

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Acetone

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 5,500 - 6,100 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 6,084 mg/l, Method Not Specified.
LC50, Ceriodaphnia dubia (water flea), 48 Hour, 8,098 mg/l

Acute toxicity to algae/aquatic plants

EC50, Skeletonema costatum (marine diatom), 5 d, Biomass, 11,800 - 14,400 mg/l

Toxicity to bacteria

IC50, activated sludge, 3 Hour, > 1,000 mg/l, OECD 209 Test

Toxicity to Above Ground Organisms

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).
dietary LC50, Coturnix japonica (Japanese quail), > 20,000 ppm

Propane

Acute toxicity to fish

No relevant data found.

Persistence and degradability

Acetone

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

Biodegradation: 91 %

Exposure time: 28 d

Method: OECD Test Guideline 301B or Equivalent

Theoretical Oxygen Demand: 2.20 mg/mg Estimated.

Biological oxygen demand (BOD)

| Incubation Time | BOD |
|-----------------|--------|
| 5 d | 69.1 % |
| 10 d | 72.7 % |
| 20 d | 73.6 % |

Photodegradation**Test Type:** Half-life (indirect photolysis)**Sensitizer:** OH radicals**Atmospheric half-life:** 52 d**Method:** Estimated.**Propane****Biodegradability:** No relevant data found.**Theoretical Oxygen Demand:** 3.64 mg/mg**Photodegradation****Test Type:** Half-life (indirect photolysis)**Sensitizer:** OH radicals**Atmospheric half-life:** 8.4 d**Method:** Estimated.**Bioaccumulative potential****Acetone****Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).**Partition coefficient: n-octanol/water(log Pow):** -0.24 Measured**Bioconcentration factor (BCF):** 0.69 Fish Measured**Propane****Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).**Partition coefficient: n-octanol/water(log Pow):** 2.36 Measured**Mobility in soil****Acetone**

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 0.37 - 2.0 Estimated.**Propane**

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 24 - 460 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and

compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

14. TRANSPORT INFORMATION

DOT

| | |
|-----------------------------|------------------|
| Proper shipping name | Aerosols |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Reportable Quantity | Acetone, Propane |

Classification for SEA transport (IMO-IMDG):

| | |
|---|--|
| Proper shipping name | AEROSOLS |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |
| Marine pollutant | No |
| Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code | Consult IMO regulations before transporting ocean bulk |

Classification for AIR transport (IATA/ICAO):

| | |
|-----------------------------|---------------------|
| Proper shipping name | Aerosols, flammable |
| UN number | UN 1950 |
| Class | 2.1 |
| Packing group | |

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard
Chronic Health Hazard
Fire Hazard
Sudden Release of Pressure Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

| Components | CASRN |
|------------|---------|
| Propane | 74-98-6 |

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Revision

Identification Number: 101194147 / A001 / Issue Date: 04/13/2016 / Version: 8.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

| | |
|------------|---|
| ACGIH | USA. ACGIH Threshold Limit Values (TLV) |
| Asphyxiant | Asphyxiant |
| BEI | Biological Exposure Indices |
| C | Ceiling |
| CAL PEL | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| Dow IHG | Dow Industrial Hygiene Guideline |
| OSHA Z-1 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |

| | |
|------|----------------------------|
| PEL | Permissible exposure limit |
| STEL | Short term exposure limit |
| TWA | Time weighted average |

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



SAFETY DATA SHEET
Resinoid Bonded Abrasives
For Cutting and Grinding Metals
SDS #1

1. IDENTIFICATION

Product Identity / Trade Name: Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29), Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18) Mounted Point.

Product Use: Abrasive materials used for cutting and grinding metals.
Restriction on Use: Use only as directed

Manufacturer: United Abrasives, Inc.
185 Boston Post Road
North Windham, CT 06256

Internet: www.unitedabrasives.com

Information Phone: (860) 456-7131 **Emergency Phone:** (860) 456-7131

Date of Preparation: February 15, 2017

2. HAZARD(S) IDENTIFICATION

Classification: This product is not classified as hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazards not otherwise classified: Most of the dust/fumes generated in the cutting and grinding process is from the base material. The exposure to the dust/fumes from the material the potential hazard from this exposure must be evaluated.

Label Elements:
None required.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name | CAS No. | Concentration |
|----------------------|------------|---------------|
| Aluminum Oxide | 1344-28-1 | 0-95 |
| Zirconium Oxide | 1314-23-4 | 0-80 |
| Cured Phenolic Resin | N/A | 1-30 |
| Nitrile Compounds | N/A | 1-20 |
| Fluoride Compounds | N/A | 1-20 |
| Iron Pyrite | 12068-85-8 | 0-20 |
| Woven Fiberglass | N/A | 0-15 |
| Calcium Compounds | N/A | 0-15 |
| Sulfur | 7704-34-9 | 0-15 |
| Calcium Oxide | 1305-78-8 | 1-10 |

| | | |
|-----------------------------|------------|---------|
| Cryolite | 15096-52-3 | 1-10 |
| Cured Epoxy Resin | N/A | 1-10 |
| Calcium Carbonate | 1317-65-3 | 0-5 |
| Iron Oxide | 1309-37-1 | 0-5 |
| Graphite | 7782-42-5 | 0-5 |
| Aluminum Potassium Fluoride | 14484-69-6 | 0-0.5 |
| Potassium Fluoroborate | 14075-53-7 | 0.1-0.5 |
| Titanium Dioxide | 13463-67-7 | 0.1-0.5 |

The specific identity and/or exact percentage has been withheld as a trade secret.

4. FIRST-AID MEASURES

Ingestion: If grinding dust is swallowed, seek medical attention.

Inhalation: If overexposed to grinding dust, remove victim to fresh air and get medical attention.

Eye Contact: Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.

Skin Contact: Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

Most important symptoms/effects, acute and delayed: May cause mechanical eye and skin irritation. Inhalation of dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Prolonged overexposure may cause damage to the respiratory tract, bones and teeth by inhalation.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use any media that is appropriate for the surrounding fire.

Specific hazards arising from the chemical: This product is not combustible, however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions: Avoid release into the environmental. Report releases as required by local, state and federal authorities.

Methods and materials for containment and cleaning up: Pick up, sweep up or vacuum and place in a container for disposal. Minimize generation of dust.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Refer to ANSI B7.1, Safety Requirements for the Use, Care and Protection of Abrasive Wheels for additional information. Consider potential exposure to

components of the base materials or coatings being ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities: Store in accordance with ANSI B7.1. Protect abrasive wheels from damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

| | |
|--|---|
| Aluminum Oxide | 5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Zirconium Oxide (as zirconium compounds) | 5 mg/m3 TWA ACGIH TLV 10 mg/m3 STEL ACGIH TLV 5 mg/m3 TWA OSHA PEL |
| Cured Phenolic Resin | None Established |
| Nitrile Compounds | None Established |
| Fluoride Compounds | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Iron Pyrite | None Established |
| Woven Fiberglass | 5 mg/m3 TWA ACGIH TLV (inhalable) 1 f/cc TWA ACGIH TLV (respirable) |
| Calcium Compounds | None Established |
| Sulfur | None Established |
| Calcium Oxide | 2 mg/m3 TWA ACGIH TLV 5 mg/m3 TWA OSHA PEL |
| Cryolite (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Cured epoxy resin | None Established |
| Titanium Dioxide | 10 mg/m3 TWA ACGIH TLV 15 mg/m3 TWA OSHA PEL (total dust) |
| Calcium Carbonate | 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Iron Oxide | 5 mg/m3 TWA ACGIH TLV (respirable fraction) 10 mg/m3 TWA OSHA PEL (fume) |
| Graphite | 2 mg/m3 TWA ACGIH TLV (respirable fraction) 15 mppcf mg/m3 TWA OSHA PEL |
| Aluminum Potassium Fluoride (as Al metal) | 5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Aluminum Potassium Fluoride (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Potassium Fluoroborate (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Titanium Dioxide | 10 mg/m3 TWA ACGIH TLV 15 mg/m3 TWA OSHA PEL (total dust) |

Note: Consider also components of base materials and coatings being ground.

Appropriate engineering controls: Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below occupational exposure limits.

Individual protection measures, such as personal protective equipment:

Respiratory protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin protection: Cloth or leather gloves recommended.

Eye protection: Safety goggles or face shield over safety glasses with side shields.

Other: Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Black, brown or reddish colored solid wheel.

Odor: No Odor

| | |
|---|--|
| Odor threshold: Not applicable | pH: Not applicable |
| Melting point/freezing point: Not applicable | Boiling Point: Not applicable |
| Flash point: Not applicable | Evaporation rate: Not applicable |
| Flammability (solid, gas): Not combustible | |
| Flammable limits: LEL: Not applicable | UEL: Not applicable |
| Vapor pressure: Not applicable | Vapor density: |
| Relative density: Not applicable | Solubility(ies): Not soluble |
| Partition coefficient: n-octanol/water: Not applicable | Auto-ignition temperature: Not applicable |
| Decomposition temperature: Not applicable | Viscosity: Not applicable |

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: None known.

Incompatible materials: None known.

Hazardous decomposition products: Dust from grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:

Inhalation: Dust may cause respiratory irritation.

Ingestion: None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

Skin contact: None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

Eye contact: Dust may cause mechanical irritation.

Chronic effects from short- and long-term exposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged overexposure to fluorides may cause a bone condition, fluorosis. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

Carcinogenicity: Titanium Dioxide is listed by IARC as a group 2B Carcinogen (suspected human carcinogen). Nove of the other components is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Additional Information: This SDS is applicable to product from United Abrasives only. The material being processed must be evaluated to determine any potential hazard.

This product contains titanium dioxide which has caused cancer in rats after high level exposure and inhalation. No exposure to titanium dioxide has been detected through air sampling during tests to simulate use. Thus, there are no health effects associated with titanium dioxide during the normal use of this product.

Numerical measures of toxicity:

Aluminum Oxide: LD50 Oral rat >5,000 mg/kg

Zirconium Oxide: Oral rat LD50 >5000 mg/kg

Iron Pyrite: No toxicity data available

Sulfur: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 >5.43 mg/L/4 hr, Dermal rat LD50 >200 mg/L

Calcium Oxide: Oral rat LD50 >7340 mg/kg

Cryolite: LD50 Oral rat >5,000 mg/kg

Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

Calcium Carbonate: No toxicity data available

Iron Oxide: LD50 oral rat > 10000 mg/kg

Graphite: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 2 mg/L

Aluminum Potassium fluoride: LD50 oral rat 2150 mg/kg, LC50 inhalation rat > 3.4 mg/L, LD50 dermal rabbit > 2000 mg/kg.

Potassium Fluoroborate: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 5.3 mg/L

Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Aluminum Oxide: 96 hr LC50 Pimephales promelas 35 mg/L

Zirconium Oxide: 96 hr LC50 Danio rerio >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L

Iron Pyrite: No data available

Sulfur: 96 hr LC50 Oncorhynchus mykiss > 5 µg/L (solubility limit of sulfur), 48 hr EC50 daphnia magna > 5 µg/L (solubility limit of sulfur)

Calcium oxide: 96 hr LC50 Cyprinus carpio >1070 mg/L

Cryolite: No data available

Calcium Carbonate: No data available

Iron Oxide: No data available

Graphite: Danio rerio LC50 > 100 mg/L/96hr

Aluminum Potassium fluoride: Brachydanio rerio LC50 > 10 mg/L/96h

Potassium Fluoroborate: Leuciscus idus LC50: 760 mg/L/96hr

Titanium Dioxide: 48 hr EC50 daphnia magna >500 mg/L

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.

Bioaccumulative potential: No data available

Mobility in soil: No data available.

Other adverse effects: No hazards to the environment are expected from this product. However, consideration must be given to potential environment effects of the base material being processed.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to

determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

14. TRANSPORT INFORMATION

| | UN Number | Proper shipping name | Hazard Class | Packing Group | Environmental Hazard |
|------------|-----------|----------------------|--------------|---------------|----------------------|
| DOT | None | Not Regulated | None | None | |
| TDG | None | Not Regulated | None | None | |

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None identified.

15. REGULATORY INFORMATION

SARA Section 311/312 Hazard Categories: Not Applicable (manufactured articles)

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting): None

California Proposition 65: WARNING! You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1* Flammability = 0 Physical Hazard = 0
 *Chronic health hazard

Date Previous Revision: 3/31/15

Date This Revision: 2/15/17

Revision Summary:

8/24/12: Section 3 Updated Composition, Section 8 Updated exposure limits, Section 11 Updated Acute toxicity values.

3/31/15: Changed all sections. Updated format to GHS.

9/30/16: Section 2 Classification, Hazard Phrases, Precautionary Phrases; Section 3 Composition; Section 8 Exposure guidelines; Section 11 Numerical measures of toxicity; Section 12 Ecotoxicity

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the user's obligation to assure safe use of this product.

1. IDENTIFICATION

Product Identity / Trade Name: Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29), Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18), Mounted Points, UA-MTX, UA-GFX, A36F, A54F.

Product Use: Abrasive materials used for cutting and grinding metals, concrete, masonry and building materials.

Restriction on Use: Use only as directed

Manufacturer: United Abrasives, Inc.
185 Boston Post Road
North Windham, CT 06256

Internet: www.unitedabrasives.com

Information Phone: (860) 456-7131 **Emergency Phone:** (860) 456-7131

Date of Preparation: March 31, 2015

2. HAZARD(S) IDENTIFICATION

As sold, this product is a manufactured article. During processing, dust generated has the following hazards:

Classification:

| Physical | Health |
|---------------|---|
| Not Hazardous | Specific Target Organ Toxicity – Repeated Exposure Category 1 (Respiratory tract, teeth and bones) Carcinogen Category 2 |

Labeling Elements:



Danger

Hazard statement(s)

H351 Suspected of causing cancer by inhalation.
H372 Causes damage to respiratory tract, teeth and bones through prolonged or repeated exposure.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection.
P308+P313 IF exposed or concerned: Get medical attention.
P405 Store locked up.
P501 Dispose of contents in accordance with local, regional

and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name | CAS No. | Concentration |
|-----------------------------|------------|---------------|
| Aluminum Oxide | 1344-28-1 | 0-95 |
| Silicon Carbide | 409-21-2 | 0-95 |
| Zirconium Oxide | 1314-23-4 | 0-80 |
| Cured Phenolic Resin | N/A | 1-30 |
| Nitrile Compounds | N/A | 1-20 |
| Fluoride Compounds | N/A | 1-20 |
| Iron Pyrite | 12068-85-8 | 0-20 |
| Woven Fiberglass | N/A | 0-15 |
| Calcium Compounds | N/A | 0-15 |
| Sulfur | 7704-34-9 | 0-15 |
| Calcium Oxide | 1305-78-8 | 1-10 |
| Cryolite | 15096-52-3 | 1-10 |
| Cured Epoxy Resin | N/A | 1-10 |
| Titanium Dioxide | 13463-67-7 | 0-5 |
| Calcium Carbonate | 1317-65-3 | 0-5 |
| Aluminum Potassium Fluoride | 14484-69-6 | 0-5 |
| Iron Oxide | 1309-37-1 | 0-5 |
| Graphite | 7782-42-5 | 0-5 |
| Potassium Fluoroborate | 14075-53-7 | 0-5 |

The specific identity and/or exact percentage has been withheld as a trade secret.

4. FIRST-AID MEASURES

Ingestion: If grinding dust is swallowed, seek medical attention.

Inhalation: If overexposed to grinding dust, remove victim to fresh air and get medical attention.

Eye Contact: Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.

Skin Contact: Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

Most important symptoms/effects, acute and delayed: May cause mechanical eye and skin irritation. Inhalation of dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Suspected of causing cancer based on animal data. Prolonged overexposure may cause damage to the respiratory tract, bones and teeth by inhalation.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use any media that is appropriate for the surrounding fire.

Specific hazards arising from the chemical: This product is not combustible, however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions: Avoid release into the environmental. Report releases as required by local, state and federal authorities.

Methods and materials for containment and cleaning up: Pick up, sweep up or vacuum and place in a container for disposal. Minimize generation of dust.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Refer to ANSI B7.1, Safety Requirements for the Use, Care and Protection of Abrasive Wheels for additional information. Consider potential exposure to components of the base materials or coatings being ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities: Store in accordance with ANSI B7.1. Protect abrasive wheels from damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

| | |
|--|--|
| Aluminum Oxide | 5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Silicon Carbide | 3 mg/m3 TWA ACGIH TLV (respirable fraction) 10 mg/m3 TWA ACGIH TLV (inhalable fraction) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Zirconium Oxide (as zirconium compounds) | 5 mg/m3 TWA ACGIH TLV 10 mg/m3 STEL ACGIH TLV 5 mg/m3 TWA OSHA PEL |
| Cured Phenolic Resin | None Established |
| Nitrile Compounds | None Established |
| Fluoride Compounds | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Iron Pyrite | None Established |
| Woven Fiberglass | 5 mg/m3 TWA ACGIH TLV (inhalable) 1 f/cc TWA ACGIH TLV (respirable) |
| Calcium Compounds | None Established |
| Sulfur | None Established |
| Calcium Oxide | 2 mg/m3 TWA ACGIH TLV 5 mg/m3 TWA OSHA PEL |
| Cryolite (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Cured epoxy resin | None Established |
| Titanium Dioxide | 10 mg/m3 TWA ACGIH TLV 15 mg/m3 TWA OSHA PEL (total dust) |
| Calcium Carbonate | 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |

| | |
|--|---|
| Aluminum Potassium Fluoride (as Al metal) | 5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Aluminum Potassium Fluoride (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |
| Iron Oxide | 5 mg/m3 TWA ACGIH TLV (respirable fraction) 10 mg/m3 TWA OSHA PEL (fume) |
| Graphite | 2 mg/m3 TWA ACGIH TLV (respirable fraction) 15 mppcf mg/m3 TWA OSHA PEL |
| Potassium Fluoroborate (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL |

Note: Consider also components of base materials and coatings being ground.

Appropriate engineering controls: Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below occupational exposure limits.

Individual protection measures, such as personal protective equipment:

Respiratory protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin protection: Cloth or leather gloves recommended.

Eye protection: Safety goggles or face shield over safety glasses with side shields.

Other: Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Black, brown or reddish colored solid wheel.

Odor: No Odor

| | |
|---|--|
| Odor threshold: Not applicable | pH: Not applicable |
| Melting point/freezing point: Not applicable | Boiling Point: Not applicable |
| Flash point: Not applicable | Evaporation rate: Not applicable |
| Flammability (solid, gas): Not combustible | |
| Flammable limits: LEL: Not applicable | UEL: Not applicable |
| Vapor pressure: Not applicable | Vapor density: |
| Relative density: Not applicable | Solubility(ies): Not soluble |
| Partition coefficient: n-octanol/water: Not applicable | Auto-ignition temperature: Not applicable |
| Decomposition temperature: Not applicable | Viscosity: Not applicable |

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: None known.

Incompatible materials: None known.

Hazardous decomposition products: Dust from grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:

Inhalation: Dust may cause respiratory irritation.

Ingestion: None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

Skin contact: None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

Eye contact: Dust may cause mechanical irritation.

Chronic effects from short- and long-term exposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged overexposure to fluorides may cause a bone condition, fluorosis. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

Carcinogenicity: Titanium Dioxide is listed by IARC as a group 2B Carcinogen (suspected human carcinogen). None of the other components is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Numerical measures of toxicity:

Aluminum Oxide: LD50 Oral rat >5,000 mg/kg

Silicon Carbide: Oral rat LD50 >2000 mg/kg, Dermal rat LD50 >2000 mg/kg

Zirconium Oxide: Oral rat LD50 >5000 mg/kg

Iron Pyrite: No toxicity data available

Sulfur: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 >5.43 mg/L/4 hr, Dermal rat LD50 >200 mg/L

Calcium Oxide: Oral rat LD50 >7340 mg/kg

Cryolite: LD50 Oral rat >5,000 mg/kg

Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

Calcium Carbonate: No toxicity data available

Aluminum Potassium fluoride: LD50 oral rat 2150 mg/kg, LC50 inhalation rat > 3.4 mg/L, LD50 dermal rabbit > 2000 mg/kg.

Iron Oxide: LD50 oral rat > 10000 mg/kg

Graphite: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 2 mg/L

Potassium Fluoroborate: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 5.3 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Aluminum Oxide: 96 hr LC50 Pimephales promelas 35 mg/L

Silicon Carbide: No data available

Zirconium Dioxide: 96 hr LC50 Danio rerio >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L, 72 hr

Iron Pyrite: No data available

Sulfur: 96 hr LC50 Oncorhynchus mykiss > 5 µg/L (solubility limit of sulfur), 48 hr EC50 daphnia magna > 5 µg/L (solubility limit of sulfur)

Calcium oxide: 96 hr LC50 Cyprinus carpio >1070 mg/L

Cryolite: No data available

Titanium Dioxide: 48 hr EC50 daphnia magna >500 mg/L

Calcium Carbonate: No data available

Aluminum Potassium fluoride: Brachydanio rerio LC50 > 10 mg/L/96h

Iron Oxide: No data available

Graphite: Danio rerio LC50 > 100 mg/L/96hr

Potassium Fluoroborate: Leuciscus idus LC50: 760 mg/L/96hr

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.

Bioaccumulative potential: No data available

Mobility in soil: No data available.

Other adverse effects: No hazards to the environment are expected from this product. However, consideration must be given to potential environment effects of the base material being processed.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

14. TRANSPORT INFORMATION

| | UN Number | Proper shipping name | Hazard Class | Packing Group | Environmental Hazard |
|-----|-----------|----------------------|--------------|---------------|----------------------|
| DOT | None | Not Regulated | None | None | |
| TDG | None | Not Regulated | None | None | |

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None identified.

15. REGULATORY INFORMATION

SARA Section 311/312 Hazard Categories: Not Applicable (manufactured articles)

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting): None

California Proposition 65: WARNING! You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1* Flammability = 0 Physical Hazard = 0
 *Chronic health hazard

Date Previous Revision: 8/24/12

Date This Revision: 3/31/15

Revision Summary:

8/24/12: Section 3 Updated Composition, Section 8 Updated exposure limits, Section 11 Updated Acute toxicity values.

3/31/15: Changed all sections. Updated format to GHS.

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the user's obligation to assure safe use of this product.




SAFETY DATA SHEET

1. Identification

| | |
|---|--|
| Product identifier | Heavy Duty Degreaser II |
| Other means of identification | |
| Product Code | No. 03120 (Item# 1003398) |
| Recommended use | General purpose degreaser |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/Distributor information | |
| Manufactured or sold by: | |
| Company name | CRC Industries, Inc. |
| Address | 885 Louis Dr. Warminster, PA 18974 US |
| Telephone | |
| General Information | 215-674-4300 |
| Technical Assistance | 800-521-3168 |
| Customer Service | 800-272-4620 |
| 24-Hour Emergency | 800-424-9300 (US) |
| (CHEMTREC) | 703-527-3887 (International) |
| Website | www.crcindustries.com |

2. Hazard(s) identification

| | | |
|------------------------------|---|------------------------------|
| Physical hazards | Flammable aerosols Gases under pressure | Category 1 Compressed gas |
| Health hazards | Serious eye damage/eye irritation Aspiration hazard | Category 2A Category 1 |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements |  | |

| | |
|--------------------------------|--|
| Signal word | Danger |
| Hazard statement | Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes serious eye irritation. |
| Precautionary statement | |
| Prevention | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Wash thoroughly after handling. Wear eye protection/face protection. |
| Response | If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Storage | Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst. |
| Disposal | Dispose of contents/container in accordance with local/regional/national regulations. |

| | |
|--|-------------|
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---|--------------------------|------------|---------|
| distillates (petroleum), hydrotreated light | | 64742-47-8 | 50 - 60 |
| dipropylene glycol monopropyl ether (dpmp) | | 29911-27-1 | 20 - 30 |
| carbon dioxide | | 124-38-9 | 3 - 5 |

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

| | |
|---|--|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, acute and delayed | Aspiration may cause pulmonary edema and pneumonitis. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| Fire fighting equipment/instructions | In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. |
| General fire hazards | Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame. |

6. Accidental release measures

| | |
|--|---|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. |

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| Components | Type | Value |
|--|------|-----------------------|
| carbon dioxide (CAS 124-38-9) | PEL | 9000 mg/m3 |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | PEL | 5000 ppm 400 mg/m3 |
| | | 100 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-------------------------------|------|-----------|
| carbon dioxide (CAS 124-38-9) | STEL | 30000 ppm |
| | TWA | 5000 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|--|------|------------------------|
| carbon dioxide (CAS 124-38-9) | STEL | 54000 mg/m3 |
| | | 30000 ppm |
| | TWA | 9000 mg/m3 5000 ppm |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | TWA | 100 mg/m3 |

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower should be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Neoprene.

Other Wear appropriate chemical resistant clothing.

| | |
|---------------------------------------|--|
| Respiratory protection | If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

9. Physical and chemical properties

Appearance

| | |
|---|----------------------------|
| Physical state | Liquid. |
| Form | Aerosol. |
| Color | Water-white. |
| Odor | Slight. Hydrocarbon-like. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | -121 °F (-85 °C) estimated |
| Initial boiling point and boiling range | 392 °F (200 °C) estimated |
| Flash point | 185 °F (85 °C) Setflash |
| Evaporation rate | Slow. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 0.6 % estimated |
| Flammability limit - upper (%) | 8.3 % estimated |
| Vapor pressure | 2265.4 hPa estimated |
| Vapor density | > 1 (air = 1) |
| Relative density | 0.87 estimated |
| Solubility(ies) | |
| Solubility (water) | Slightly soluble. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 401 °F (205 °C) estimated |
| Decomposition temperature | Not available. |
| Percent volatile | 96 % estimated |

10. Stability and reactivity

| | |
|---|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides. Aldehydes. Ketones. Organic acids. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |

| | | |
|---|---|----------------------------|
| Ingestion | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. | |
| Symptoms related to the physical, chemical and toxicological characteristics | Aspiration may cause pulmonary edema and pneumonitis. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. | |
| Information on toxicological effects | | |
| Acute toxicity | May be fatal if swallowed and enters airways. | |
| Components | Species | Test Results |
| dipropylene glycol monopropyl ether (dpmp) (CAS 29911-27-1) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg 5340 mg/kg |
| Oral | | |
| LD50 | Rat | > 2000 mg/kg 1475 mg/kg |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 20 mg/l, 4 hours |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Serious eye damage/eye irritation | Causes serious eye irritation. | |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Skin sensitization | This product is not expected to cause skin sensitization. | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Carcinogenicity | Not classifiable as to carcinogenicity to humans. | |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| Not listed. | | |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) | | |
| Not regulated. | | |
| US. National Toxicology Program (NTP) Report on Carcinogens | | |
| Not listed. | | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. | |
| Specific target organ toxicity - single exposure | Not classified. | |
| Specific target organ toxicity - repeated exposure | Not classified. | |
| Aspiration hazard | May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death. | |
| Chronic effects | Prolonged inhalation may be harmful. | |

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test Results |
|--|---|--|
| dipropylene glycol monopropyl ether (dpmp) (CAS 29911-27-1) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (Daphnia magna) > 100 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) > 100 mg/l, 96 hours |
| distillates (petroleum), hydrotreated light (CAS 64742-47-8) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) 2.7 - 5.1 mg/l, 48 hours |
| Persistence and degradability | No data is available on the degradability of any ingredients in the mixture. | |
| Bioaccumulative potential | | |
| Partition coefficient n-octanol / water (log Kow) | | |
| dipropylene glycol monopropyl ether (dpmp) | 0.87 OECD 107 | |
| | 0.88 OECD 107 | |
| Mobility in soil | No data available. | |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | |

13. Disposal considerations

| | |
|-------------------------------|---|
| Hazardous waste code | Not regulated. |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |
| Disposal instructions | The dispensed liquid product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations. |

14. Transport information

DOT

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Label(s) | 2.1 |
| Packing group | Not applicable. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | N82 |
| Packaging exceptions | 306 |
| Packaging non bulk | 304 |
| Packaging bulk | None |

IATA

| | |
|-------------------------------------|---|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Packing group | Not applicable. |
| ERG Code | 10L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |
| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

| | |
|------------------|--------|
| UN number | UN1950 |
|------------------|--------|

UN proper shipping name AEROSOLS, Limited Quantity
Transport hazard class(es)
Class 2
Subsidiary risk -
Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Hazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Gas under pressure
Acute toxicity (any route of exposure)
Serious eye damage or eye irritation
Aspiration hazard

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

carbon dioxide (CAS 124-38-9)

US. Massachusetts RTK - Substance List

carbon dioxide (CAS 124-38-9)

US. Pennsylvania Worker and Community Right-to-Know Law

carbon dioxide (CAS 124-38-9)

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 96 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as a General Purpose Degreaser (aerosol). This product is compliant for use in all 50 states.

VOC content (CA) 0 %

VOC content (OTC) 0 %

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | Yes |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Toxic Chemical Substances (TCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

| | |
|----------------------------|--------------------|
| Issue date | 08-12-2014 |
| Revision date | 02-15-2018 |
| Prepared by | Allison Yoon |
| Version # | 02 |
| Further information | CRC # 490C/1002479 |

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Revision information This document has undergone significant changes and should be reviewed in its entirety.



HEET® Gas Line Antifreeze Line

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 01/25/2019

Revision date: 12/29/2020

Supersedes: 01/11/2019

Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : HEET® Gas Line Antifreeze Line
 Synonym : 584402
 Part numbers : 28201; 28203; 28205; 28213; 28219

1.2. Recommended use and restrictions on use

1.3. Supplier

Gold Eagle Co
 4400 S Kildare Ave
 Chicago, IL 60632-4372
 T 773-376-4400
<https://www.goldeagle.com/>

1.4. Emergency telephone number

Emergency number : INFOTrac: 1-800-535-5053

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

| | | |
|---|------|-----------------------------------|
| Flammable liquids Category 2 | H225 | Highly flammable liquid and vapor |
| Acute toxicity (oral) Category 4 | H302 | Harmful if swallowed |
| Acute toxicity (inhalation:dust,mist) Category 2 | H330 | Fatal if inhaled |
| Specific target organ toxicity (single exposure) Category 1 | H370 | Causes damage to organs |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H225 - Highly flammable liquid and vapor
 H302 - Harmful if swallowed
 H330 - Fatal if inhaled
 H370 - Causes damage to organs

Precautionary statements (GHS US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground/Bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P284 - [In case of inadequate ventilation] wear respiratory protection.

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P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P307+P311 - If exposed: Call a poison center/doctor.
P310 - Immediately call a poison center or doctor.
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|----------|--------------------|-------|---|
| Methanol | (CAS-No.) 67-56-1 | ≤ 100 | Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370 |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a physician immediately. Call a doctor.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|---|--|
| HEET® Gas Line Antifreeze Line | |
| No additional information available | |
| Methanol (67-56-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Methanol |
| ACGIH TWA (ppm) | 200 ppm |
| ACGIH STEL (ppm) | 250 ppm |
| Remark (ACGIH) | TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Methyl alcohol |
| OSHA PEL (TWA) (mg/m³) | 260 mg/m³ |
| OSHA PEL (TWA) (ppm) | 200 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

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Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Liquid |
| Color | : Mixture contains one or more component(s) which have the following colour(s): Colourless Colourless to light yellow |
| Odor | : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Petroleum-like odour Sweet odour Aromatic odour Characteristic odour Mild odour Pleasant odour Alcohol odour Commercial/unpurified substance: irritating/pungent odour |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : 147 °F |
| Flash point | : 56 °F |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : 96 |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : 0.791 |
| Solubility | : Water: 100 |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : Lower explosive limit (LEL): 2 Upper explosive limit (UEL): 12.7 |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

VOC content : 100

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------|-------------------------|
| Acute toxicity (oral) | : Harmful if swallowed. |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Fatal if inhaled. |

| | |
|---------------------|------------------------|
| ATE US (oral) | 1187 mg/kg body weight |
| ATE US (dust, mist) | 0.5 mg/l/4h |

| Methanol (67-56-1) | |
|-----------------------|---|
| LD50 oral rat | 1187 – 2769 mg/kg body weight (BASF test, Rat, Male/female, Weight of evidence, Aqueous solution, Oral, 7 day(s)) |
| LD50 dermal rabbit | 17100 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal) |
| LC50 Inhalation - Rat | 128.2 mg/l air (BASF test, 4 h, Rat, Male/female, Experimental value, Inhalation (vapours)) |

| | |
|-----------------------------------|----------------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Causes damage to organs. |

| Methanol (67-56-1) | |
|----------------------|--------------------------|
| STOT-single exposure | Causes damage to organs. |

| | |
|------------------------|---------------------|
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-------------------|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
|-------------------|--|

| Methanol (67-56-1) | |
|--------------------|--|
| LC50 fish 1 | 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal) |
| EC50 Daphnia 1 | 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect) |
| ErC50 (algae) | 22000 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value) |

12.2. Persistence and degradability

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| Methanol (67-56-1) | |
|---------------------------------|--|
| Persistence and degradability | Readily biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.6 – 1.12 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.42 g O ₂ /g substance |
| ThOD | 1.5 g O ₂ /g substance |

12.3. Bioaccumulative potential

| Methanol (67-56-1) | |
|---|---|
| BCF fish 1 | 1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Partition coefficient n-octanol/water (Log Pow) | -0.77 (Experimental value) |
| Partition coefficient n-octanol/water (Log Kow) | -0.77 |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| Methanol (67-56-1) | |
|---|--|
| Surface tension | 0.023 N/m (20 °C) |
| Partition coefficient n-octanol/water (Log Koc) | 0.088 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

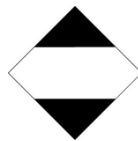
- Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Proper Shipping Name (DOT) : Consumer commodity
Hazard labels (DOT) : LTD QTY - Limited quantity



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 156;306
DOT Packaging Bulk (49 CFR 173.xxx) : None
DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada
DOT Special Provisions (49 CFR 172.102) : 222 - Shipments offered for transportation by aircraft may not be reclassified as ORM-D.
DOT Packaging Exceptions (49 CFR 173.xxx) : 156;306
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 30 kg gross
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : Forbidden
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

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Transport by sea

Transport document description (IMDG) : UN 1230 METHANOL, 3 (6.1), II (12°C c.c.)
UN-No. (IMDG) : 1230
Proper Shipping Name (IMDG) : METHANOL
Class (IMDG) : 3 - Flammable liquids
Packing group (IMDG) : II - substances presenting medium danger
Subsidiary risks (IMDG) : 6.1 - Toxic substances
Limited quantities (IMDG) : 1 L

Air transport

Transport document description (IATA) : UN 1230 Methanol, 3 (6.1), II
UN-No. (IATA) : 1230
Proper Shipping Name (IATA) : Methanol
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium Danger
Subsidiary hazards (IATA) : 6.1 - Toxic substances

SECTION 15: Regulatory information

15.1. US Federal regulations

Methanol (67-56-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 5000 lb

15.2. International regulations

CANADA

Methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Methanol (67-56-1)

| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
|---|---|---|---|----------------------------------|---|
| No | Yes | No | No | | 47000 µg/day (inhalation); 23,000 µg/day (oral) |

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 12/29/2020

Full text of H-phrases:

| | |
|------|-----------------------------------|
| H225 | Highly flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H330 | Fatal if inhaled |
| H331 | Toxic if inhaled |
| H370 | Causes damage to organs |

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SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

| | |
|-------------------------------------|--------------------------|
| IRWIN Chalk – Red, Permanent | December 23, 2016 |
| | Revision 2 |

1. PRODUCT and COMPANY IDENTIFICATION

Commercial Product Name: IRWIN Chalk – Red, Permanent
Company: IRWIN Tools
Use of product: Snap line mark
Emergency contact: 1-800-464-7946 8:00am-5:00pm Monday-Friday

2. HAZARDS IDENTIFICATION

Hazards Identification: GHS Classification and Hazard Statement

Carcinogenicity – May cause cancer (lung) Category 1A, H350

Signal Word: DANGER

Precautionary Statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves and eye protection.
- P308 and P313 If exposed or concerned, get medical advice/attention.
- P405 Store locked up.

Hazards Not Otherwise Classified or Not Covered by GHS:

Eye: May cause irritation. Chalk dust is discomforting and abrasive to the eyes.

Skin: Prolonged skin contact may cause irritation. When the product is used as intended, it is unlikely to cause discomfort.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.

Inhalation: May cause respiratory tract irritation. When the product is used as intended, it is unlikely to cause discomfort.

Chronic: Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.



DANGER

Hazard Ratings:

Hazardous Material Identification System (HMIS):

Health 2*, Flammability 0, Reactivity 0 *chronic effects

National Fire Protection Association (NFPA):

Health 2, Flammability 0, Reactivity 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance name | Value (%) | CAS No. | EC No. |
|--|-----------|------------|-----------|
| Calcium carbonate | 75 - 80 | 471-34-1 | 207-439-9 |
| Red Iron Oxide | 20 - 25 | 1309-37-1 | 215-168-2 |
| Silica (crystalline quartz) ¹ | 0.1 - 1 | 14808-60-7 | 238-878-4 |

¹ Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

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IRWIN Chalk – Red, Permanent

4. FIRST AID MEASURES

Inhalation: Remove from exposure and move to fresh air immediately. Encourage the patient to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Skin contact: Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Launder contaminated clothing before wearing again. Wash affected area with water (and soap if available) Get medical aid in the event of irritation.

Eye contact: Do not rub eyes, rubbing may cause abrasions. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Ingestion: If the victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Additional advice: Show this safety data sheet to the doctor in attendance

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Substance is noncombustible, however; the containers may burn, releasing carbon monoxide, and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

Explosion: No information found.

Specific hazards: If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.

Special protective equipment for Firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear appropriate personal protective equipment as specified in Section 8.

Environmental precautions: Do not allow this material to be released to the environment without proper governmental permits.

Methods for cleaning up: Recover the product whenever possible. Avoid generating dust when sweeping/shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal. Follow applicable OSHA regulations (29 CFR 1910.120)

7. HANDLING AND STORAGE

Storage: Store this product in a tightly-closed container in a dry, well-ventilated area away from incompatible substances.

Handling: Avoid creating, or breathing dust. Practice good personal hygiene, (hand washing, etc.) after using this product. Avoid contact with skin and eyes.

Packaging material: No information found.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

| Component | CAS No. | % by weight | Exposure Limit 8-Hour TWA ¹ (mg/m ³) | | |
|---|--------------------------|-------------|---|--------------------|--------------------------------|
| | | | OSHA PEL | ACGIH TLV | NIOSH REL |
| Calcium Carbonate (Limestone) | 471-34-1; (1317-65-3) | 70-75 | 15 ² 5 ³ | 10 ² | 10 ² 5 ³ |
| Red Iron Oxide | 1309-37-1 | 25-30 | 10 | 5 ³ | 5 |
| Silica-Crystalline Quartz ⁴ | 14808-60-7 | 0.1-1.0 | 0.05 ³ | 0.025 ³ | 0.05 ³ |

¹ TWA = Time-weighted average

² Total dust.

³ Respirable dust.

⁴ Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

Exposure and Engineering Controls: Facilities storing or utilizing this material should have potable water available for washing eyes and skin. Use sufficient general area (or outdoor) ventilation. Local exhaust ventilation should be used if airborne concentrations of dust exceed limits cited in Section 8.

Personal protective equipment:

Hand protection: Wear protective gloves

Eye protection: Wear safety glasses, or chemical goggles in windy conditions or where eye contact is possible.

Respiratory protection: When engineering controls are not sufficient to reduce exposure, seek professional advice prior to respirator selection and use. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Hygiene measures: Wash contaminated clothing before reuse.

Environmental exposure controls: No information found.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---------------------------------|
| Appearance: | Powder |
| Color: | Black |
| Odor: | Odorless. |
| pH (at 10% solids): | 8.5-9.5 |
| Boiling point/range: | No data available. |
| Melting point/range: | Decomposes at 1,517 °F (825°C). |
| Flash point: | No data available. |
| Evaporation rate: | No data available. |
| Vapor density: | No data available. |
| Solubility in water: | <0.0002 (Trace) |
| Explosive properties: | No data available. |
| Oxidizing properties: | No data available. |
| Vapor pressure: | No data available. |
| Relative density (H ₂ O=1): | 3.40-3.45 |
| Viscosity: | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, calcium oxide.

Materials to avoid: Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

Conditions to avoid: Incompatible materials.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Note: Toxicological effects described in this section are those that would be expected based on data from the components of this product.

Acute toxicity: Calcium carbonate (CAS# 471-34-1): Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, skin: 500 mg/24H Moderate; Oral, rat: LD50 = 6,450mg/kg.

Inhalation: (Silica, crystalline quartz) Human: LC_{Lo}: 300 µg/m³/ intermittent exposure over a 10-year period produced pulmonary system effects.

Skin contact: (Calcium carbonate) Rabbit: 500mg administered for 24 hours produces moderate skin irritation.

Eye contact: (Calcium carbonate) Rabbit: 0.750 mg administered for 24 hours produced severe irritation.

Ingestion: (Calcium carbonate) Rat: LD₅₀: 6,450 mg/kg.
(Iron Oxide) Rat: LD₅₀: >5,000 mg/kg.

Chronic toxicity/Carcinogenicity: Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). When the product is used as intended, dust levels should not exceed exposure limits.

Quartz – crystalline silica:

The International Agency for Research on Cancer (IARC) has designated this substance Group 1, “carcinogenic to humans”.

The National Toxicology Program (NTP) has designated this substance: Group K “known to be a human carcinogen”

American Conference of Governmental Industrial Hygienists (ACGIH) has designated this substance A2; suspected human carcinogen. The agent is carcinogenic in experimental animals at dose levels, by route of administration, at sites of histologic type(s) or by mechanism(s) considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans.

12. ECOLOGICAL INFORMATION

Bioaccumulation: No information found.

Ecotoxicity effects: No information found.

Fish Toxicity: Golden Orfe (*Leuciscus idus*) LC_{Lo}: greater than 1,000 mg/l. Limestone (which is primarily composed of calcium carbonate) is not classified as a “Toxic pollutant” or a “hazardous substance under Section 307 and 311 of the United States Clean Water Act.

13. DISPOSAL CONSIDERATIONS

Waste from residues of this product is not a hazardous waste according to U.S. Environmental Protection Agency (EPA) regulations. Disposal by landfill may be acceptable.

Consult an expert on the disposal of recovered material for compliance with state, provincial, and/or local regulations.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

14. TRANSPORT INFORMATION

U.S. DOT: Not regulated

ADR/RID: Not regulated

IMDG: Not regulated

ICAO/IATA: Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA: Ingredients are listed as air contaminants (29 CFR 1910.1000).

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

TSCA (Toxic Substance Control Act): All components of this product are listed on the TSCA inventory.

CERCLA: Hazardous Substance, (40 CFR 302.4): Not Listed.
Extremely Hazardous Substance (40 CFR 355): Not Listed.

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category:

"An immediate (acute) and chronic health hazard."

Chemicals subject to the reporting requirements of Section 313 or Title III of SARA and 40 CFR Part 372: None.

STATE REGULATIONS:

California's "Safe Drinking Water and Toxic Enforcement Act of 1986" (Proposition 65)

This product contains the following Proposition 65 regulated materials known to the State of California to cause cancer or reproductive harm. The listed typical amounts are a result of their natural presence in the raw materials from which this product is produced.

| | |
|---------------------------|------------------------------------|
| Silica-crystalline quartz | equal to, or less than 1.0 percent |
|---------------------------|------------------------------------|

CANADA WHIMS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the SDS contains all of the information required by the CPR.

16. OTHER INFORMATION

The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

End of document

| | |
|-------------------------------------|--------------------------|
| IRWIN Chalk – Red, Permanent | December 23, 2016 |
| | Revision 2 |

1. PRODUCT and COMPANY IDENTIFICATION

Commercial Product Name: IRWIN Chalk – Red, Permanent
Company: IRWIN Tools
Use of product: Snap line mark
Emergency contact: 1-800-464-7946 8:00am-5:00pm Monday-Friday

2. HAZARDS IDENTIFICATION

Hazards Identification: GHS Classification and Hazard Statement

Carcinogenicity – May cause cancer (lung) Category 1A, H350

Signal Word: DANGER

Precautionary Statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves and eye protection.
- P308 and P313 If exposed or concerned, get medical advice/attention.
- P405 Store locked up.

Hazards Not Otherwise Classified or Not Covered by GHS:

Eye: May cause irritation. Chalk dust is discomforting and abrasive to the eyes.

Skin: Prolonged skin contact may cause irritation. When the product is used as intended, it is unlikely to cause discomfort.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.

Inhalation: May cause respiratory tract irritation. When the product is used as intended, it is unlikely to cause discomfort.

Chronic: Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.



DANGER

Hazard Ratings:

Hazardous Material Identification System (HMIS):

Health 2*, Flammability 0, Reactivity 0 *chronic effects

National Fire Protection Association (NFPA):

Health 2, Flammability 0, Reactivity 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance name | Value (%) | CAS No. | EC No. |
|--|-----------|------------|-----------|
| Calcium carbonate | 75 - 80 | 471-34-1 | 207-439-9 |
| Red Iron Oxide | 20 - 25 | 1309-37-1 | 215-168-2 |
| Silica (crystalline quartz) ¹ | 0.1 - 1 | 14808-60-7 | 238-878-4 |

¹ Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

4. FIRST AID MEASURES

Inhalation: Remove from exposure and move to fresh air immediately. Encourage the patient to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Skin contact: Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Launder contaminated clothing before wearing again. Wash affected area with water (and soap if available) Get medical aid in the event of irritation.

Eye contact: Do not rub eyes, rubbing may cause abrasions. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Ingestion: If the victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Additional advice: Show this safety data sheet to the doctor in attendance

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Substance is noncombustible, however; the containers may burn, releasing carbon monoxide, and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

Explosion: No information found.

Specific hazards: If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.

Special protective equipment for Firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear appropriate personal protective equipment as specified in Section 8.

Environmental precautions: Do not allow this material to be released to the environment without proper governmental permits.

Methods for cleaning up: Recover the product whenever possible. Avoid generating dust when sweeping/shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal. Follow applicable OSHA regulations (29 CFR 1910.120)

7. HANDLING AND STORAGE

Storage: Store this product in a tightly-closed container in a dry, well-ventilated area away from incompatible substances.

Handling: Avoid creating, or breathing dust. Practice good personal hygiene, (hand washing, etc.) after using this product. Avoid contact with skin and eyes.

Packaging material: No information found.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

| Component | CAS No. | % by weight | Exposure Limit 8-Hour TWA ¹ (mg/m ³) | | |
|---|--------------------------|-------------|---|--------------------|--------------------------------|
| | | | OSHA PEL | ACGIH TLV | NIOSH REL |
| Calcium Carbonate (Limestone) | 471-34-1; (1317-65-3) | 70-75 | 15 ² 5 ³ | 10 ² | 10 ² 5 ³ |
| Red Iron Oxide | 1309-37-1 | 25-30 | 10 | 5 ³ | 5 |
| Silica-Crystalline Quartz ⁴ | 14808-60-7 | 0.1-1.0 | 0.05 ³ | 0.025 ³ | 0.05 ³ |

¹ TWA = Time-weighted average

² Total dust.

³ Respirable dust.

⁴ Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

Exposure and Engineering Controls: Facilities storing or utilizing this material should have potable water available for washing eyes and skin. Use sufficient general area (or outdoor) ventilation. Local exhaust ventilation should be used if airborne concentrations of dust exceed limits cited in Section 8.

Personal protective equipment:

Hand protection: Wear protective gloves

Eye protection: Wear safety glasses, or chemical goggles in windy conditions or where eye contact is possible.

Respiratory protection: When engineering controls are not sufficient to reduce exposure, seek professional advice prior to respirator selection and use. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Hygiene measures: Wash contaminated clothing before reuse.

Environmental exposure controls: No information found.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---------------------------------|
| Appearance: | Powder |
| Color: | Black |
| Odor: | Odorless. |
| pH (at 10% solids): | 8.5-9.5 |
| Boiling point/range: | No data available. |
| Melting point/range: | Decomposes at 1,517 °F (825°C). |
| Flash point: | No data available. |
| Evaporation rate: | No data available. |
| Vapor density: | No data available. |
| Solubility in water: | <0.0002 (Trace) |
| Explosive properties: | No data available. |
| Oxidizing properties: | No data available. |
| Vapor pressure: | No data available. |
| Relative density (H ₂ O=1): | 3.40-3.45 |
| Viscosity: | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, calcium oxide.

Materials to avoid: Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

Conditions to avoid: Incompatible materials.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Note: Toxicological effects described in this section are those that would be expected based on data from the components of this product.

Acute toxicity: Calcium carbonate (CAS# 471-34-1): Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, skin: 500 mg/24H Moderate; Oral, rat: LD50 = 6,450mg/kg.

Inhalation: (Silica, crystalline quartz) Human: LC_{Lo}: 300 µg/m³/ intermittent exposure over a 10-year period produced pulmonary system effects.

Skin contact: (Calcium carbonate) Rabbit: 500mg administered for 24 hours produces moderate skin irritation.

Eye contact: (Calcium carbonate) Rabbit: 0.750 mg administered for 24 hours produced severe irritation.

Ingestion: (Calcium carbonate) Rat: LD₅₀: 6,450 mg/kg.
(Iron Oxide) Rat: LD₅₀: >5,000 mg/kg.

Chronic toxicity/Carcinogenicity: Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). When the product is used as intended, dust levels should not exceed exposure limits.

Quartz – crystalline silica:

The International Agency for Research on Cancer (IARC) has designated this substance Group 1, “carcinogenic to humans”.

The National Toxicology Program (NTP) has designated this substance: Group K “known to be a human carcinogen”

American Conference of Governmental Industrial Hygienists (ACGIH) has designated this substance A2; suspected human carcinogen. The agent is carcinogenic in experimental animals at dose levels, by route of administration, at sites of histologic type(s) or by mechanism(s) considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans.

12. ECOLOGICAL INFORMATION

Bioaccumulation: No information found.

Ecotoxicity effects: No information found.

Fish Toxicity: Golden Orfe (*Leuciscus idus*) LC_{Lo}: greater than 1,000 mg/l. Limestone (which is primarily composed of calcium carbonate) is not classified as a “Toxic pollutant” or a “hazardous substance under Section 307 and 311 of the United States Clean Water Act.

13. DISPOSAL CONSIDERATIONS

Waste from residues of this product is not a hazardous waste according to U.S. Environmental Protection Agency (EPA) regulations. Disposal by landfill may be acceptable.

Consult an expert on the disposal of recovered material for compliance with state, provincial, and/or local regulations.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

14. TRANSPORT INFORMATION

U.S. DOT: Not regulated

ADR/RID: Not regulated

IMDG: Not regulated

ICAO/IATA: Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA: Ingredients are listed as air contaminants (29 CFR 1910.1000).

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

TSCA (Toxic Substance Control Act): All components of this product are listed on the TSCA inventory.

CERCLA: Hazardous Substance, (40 CFR 302.4): Not Listed.
Extremely Hazardous Substance (40 CFR 355): Not Listed.

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category:

"An immediate (acute) and chronic health hazard."

Chemicals subject to the reporting requirements of Section 313 or Title III of SARA and 40 CFR Part 372: None.

STATE REGULATIONS:

California's "Safe Drinking Water and Toxic Enforcement Act of 1986" (Proposition 65)

This product contains the following Proposition 65 regulated materials known to the State of California to cause cancer or reproductive harm. The listed typical amounts are a result of their natural presence in the raw materials from which this product is produced.

| | |
|---------------------------|------------------------------------|
| Silica-crystalline quartz | equal to, or less than 1.0 percent |
|---------------------------|------------------------------------|

CANADA WHIMS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the SDS contains all of the information required by the CPR.

16. OTHER INFORMATION

The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

SAFETY DATA SHEET

IRWIN Chalk – Red, Permanent

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End of document

SAFETY DATA SHEET

1813

Section 1. Identification

Product name : KRYLON® OSHA Colors
Safety Yellow

Product code : 1813

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

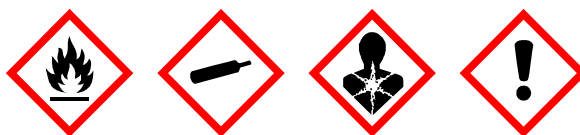
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 13.6% (oral), 13.6% (dermal), 48.6% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Date of issue/Date of revision : 8/25/2021

Date of previous issue : 8/24/2021

Version : 19.02

1/18

1813
KRYLON® OSHA Colors
Safety Yellow

SHW-85-NA-GHS-US

Section 2. Hazards identification

- Hazard statements** : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
- Precautionary statements**
- General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
- Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
- Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.
- Hazards not otherwise classified** : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|---------------------------------|-------------|------------|
| Methyl Acetate | ≥25 - ≤50 | 79-20-9 |
| Methyl Ethyl Ketone | ≥10 - ≤25 | 78-93-3 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≤10 | 106-97-8 |
| 2-methoxy-1-methylethyl acetate | ≤5 | 108-65-6 |
| Xylene, mixed isomers | ≤5 | 1330-20-7 |
| Titanium Dioxide | ≤3 | 13463-67-7 |
| Ethylbenzene | <1 | 100-41-4 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|---------------------------------|-----------|--|
| Methyl Acetate | 79-20-9 | ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. TWA: 606 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 757 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 610 mg/m ³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 760 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 610 mg/m ³ 8 hours. |
| Methyl Ethyl Ketone | 78-93-3 | ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| 2-methoxy-1-methylethyl acetate | 108-65-6 | AIHA WEEL (United States, 7/2020). TWA: 50 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. |

Section 8. Exposure controls/personal protection

| | | |
|------------------|------------|---|
| Titanium Dioxide | 13463-67-7 | <p>STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2020). TWA: 10 mg/m³ 8 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2020). TWA: 10 mg/m³ 8 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|---------------------|---------|--|
| Methyl acetate | 79-20-9 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 606 mg/m³ 8 hours. 15 min OEL: 757 mg/m³ 15 minutes. 15 min OEL: 250 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 200 ppm 8 hours. TWAEV: 606 mg/m³ 8 hours. STEV: 250 ppm 15 minutes. STEV: 757 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 250 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| Methyl ethyl ketone | 78-93-3 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 300 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. 8 hrs OEL: 590 mg/m³ 8 hours. 15 min OEL: 885 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019).</p> |

Section 8. Exposure controls/personal protection

| | | |
|----------------|-----------|--|
| Normal propane | 74-98-6 | <p>TWAEV: 50 ppm 8 hours. TWAEV: 150 mg/m³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 300 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 300 ppm 15 minutes. TWA: 200 ppm 8 hours. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Butane | 106-97-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Saskatchewan Provincial (Canada,</p> |

Section 8. Exposure controls/personal protection

| | | |
|------------------|------------|--|
| Titanium dioxide | 13463-67-7 | <p>7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 10 mg/m³ 8 hours. Form: Total dust TWA: 3 mg/m³ 8 hours. Form: respirable fraction CA Quebec Provincial (Canada, 7/2019). TWAEV: 10 mg/m³ 8 hours. Form: Total dust. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|-----------------------|-----------|--|
| Methyl Acetate | 79-20-9 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. |
| Methyl Ethyl Ketone | 78-93-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Section 11. Toxicological information

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-------------------|-------------|
| Methyl Acetate | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 uL | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| Titanium Dioxide | Skin - Mild irritant | Human | - | 72 hours 300 ug l | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Xylene, mixed isomers | - | 3 | - |
| Titanium Dioxide | - | 2B | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---------------------|------------|-------------------|------------------------------|
| Methyl Acetate | Category 3 | - | Narcotic effects |
| Methyl Ethyl Ketone | Category 3 | - | Respiratory tract irritation |
| Propane | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |
| Butane | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract |

Section 11. Toxicological information

| | | | |
|---------------------------------|------------|---|------------------------------|
| 2-methoxy-1-methylethyl acetate | Category 3 | - | irritation |
| Xylene, mixed isomers | Category 3 | - | Narcotic effects |
| | Category 3 | - | Narcotic effects |
| Ethylbenzene | Category 3 | - | Respiratory tract irritation |
| | Category 3 | - | Respiratory tract irritation |
| | Category 3 | - | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------|------------|-------------------|---------------|
| Methyl Ethyl Ketone | Category 2 | - | - |
| Propane | Category 2 | - | - |
| Butane | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |

Aspiration hazard

| Name | Result |
|-----------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--------------------|----------------|
| Oral | 9495.94 mg/kg |
| Dermal | 29962.62 mg/kg |
| Inhalation (gases) | 108570.37 ppm |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---------------------------------------|---------------------------------------|---|----------|
| Methyl Acetate Methyl Ethyl Ketone | Acute LC50 320000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 >500000 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 5091000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| Xylene, mixed isomers | Acute LC50 3220000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Titanium Dioxide Ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Section 12. Ecological information

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methyl Ethyl Ketone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| | | | | | |

Section 14. Transport information

| | | | | | |
|-------------------------------|--|--|--|--|--|
| Additional information | - | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). | - | - | Emergency schedules F-D, S-U |
| | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists

- Australia inventory (AIIIC):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (CSCL):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

Date of printing : 8/25/2021

Date of issue/Date of revision : 8/25/2021

Date of previous issue : 8/24/2021

Version : 19.02

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

1813

Section 1. Identification

Product name : KRYLON® OSHA Colors
Safety Yellow

Product code : 1813

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

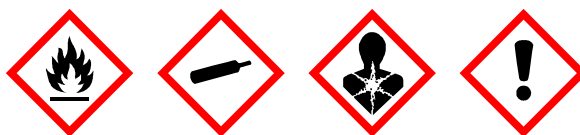
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 13.6% (oral), 13.6% (dermal), 48.6% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

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Section 2. Hazards identification

- Hazard statements** : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
- Precautionary statements**
- General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
- Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
- Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.
- Hazards not otherwise classified** : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|---------------------------------|-------------|------------|
| Methyl Acetate | ≥25 - ≤50 | 79-20-9 |
| Methyl Ethyl Ketone | ≥10 - ≤25 | 78-93-3 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≤10 | 106-97-8 |
| 2-methoxy-1-methylethyl acetate | ≤5 | 108-65-6 |
| Xylene, mixed isomers | ≤5 | 1330-20-7 |
| Titanium Dioxide | ≤3 | 13463-67-7 |
| Cellulose Acetate Butyrate | ≤3 | 9004-36-8 |
| Ethylbenzene | <1 | 100-41-4 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

| | | | |
|---|--|-------------------------|------|
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Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|---------------------------------|-----------|--|
| Methyl Acetate | 79-20-9 | ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. TWA: 606 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 757 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 610 mg/m ³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 760 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 610 mg/m ³ 8 hours. |
| Methyl Ethyl Ketone | 78-93-3 | ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| 2-methoxy-1-methylethyl acetate | 108-65-6 | AIHA WEEL (United States, 7/2020). TWA: 50 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. |

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Section 8. Exposure controls/personal protection

| | | |
|--|-----------------------|--|
| Titanium Dioxide | 13463-67-7 | STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). TWA: 10 mg/m ³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Cellulose Acetate Butyrate Ethylbenzene | 9004-36-8 100-41-4 | STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). TWA: 10 mg/m ³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|---------------------|---------|---|
| Methyl acetate | 79-20-9 | CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 606 mg/m ³ 8 hours. 15 min OEL: 757 mg/m ³ 15 minutes. 15 min OEL: 250 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2019). TWAEV: 200 ppm 8 hours. TWAEV: 606 mg/m ³ 8 hours. STEV: 250 ppm 15 minutes. STEV: 757 mg/m ³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 250 ppm 15 minutes. TWA: 200 ppm 8 hours. |
| Methyl ethyl ketone | 78-93-3 | CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 300 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. 8 hrs OEL: 590 mg/m ³ 8 hours. 15 min OEL: 885 mg/m ³ 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. |

Section 8. Exposure controls/personal protection

| | | |
|----------------|-----------|--|
| Normal propane | 74-98-6 | <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 50 ppm 8 hours. TWAEV: 150 mg/m³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 300 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 300 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> |
| Butane | 106-97-8 | <p>CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

| | | |
|------------------|------------|--|
| Titanium dioxide | 13463-67-7 | <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 10 mg/m³ 8 hours. Form: Total dust TWA: 3 mg/m³ 8 hours. Form: respirable fraction</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 10 mg/m³ 8 hours. Form: Total dust.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|-----------------------|-----------|--|
| Methyl Acetate | 79-20-9 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. |
| Methyl Ethyl Ketone | 78-93-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)

Section 9. Physical and chemical properties

- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 16%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.81
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 33.704 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---------------------------------|-----------------------|---------|--------------------------|----------|
| Methyl Acetate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| Methyl Ethyl Ketone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LD50 Oral | Rat | 2737 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | >5 g/kg | - |
| 2-methoxy-1-methylethyl acetate | LD50 Oral | Rat | 8532 mg/kg | - |
| | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| Xylene, mixed isomers | LD50 Oral | Rat | 4300 mg/kg | - |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| Ethylbenzene | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

Section 11. Toxicological information

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-------------------|-------------|
| Methyl Acetate | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 uL | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Titanium Dioxide | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Skin - Mild irritant | Human | - | 72 hours 300 ug l | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Xylene, mixed isomers | - | 3 | - |
| Titanium Dioxide | - | 2B | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---------------------|------------|-------------------|------------------------------|
| Methyl Acetate | Category 3 | - | Narcotic effects |
| Methyl Ethyl Ketone | Category 3 | - | Respiratory tract irritation |
| Propane | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Butane | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |

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Safety Yellow

SHW-85-NA-GHS-US

Section 11. Toxicological information

| | | | |
|--|--|-------------|--|
| 2-methoxy-1-methylethyl acetate Xylene, mixed isomers | Category 3 Category 3 Category 3 | - - - | Narcotic effects Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | - - | Respiratory tract irritation Respiratory tract irritation Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------|------------|-------------------|---------------|
| Methyl Ethyl Ketone | Category 2 | - | - |
| Propane | Category 2 | - | - |
| Butane | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |

Aspiration hazard

| Name | Result |
|-----------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--------------------|----------------|
| Oral | 9495.94 mg/kg |
| Dermal | 29962.62 mg/kg |
| Inhalation (gases) | 108570.37 ppm |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---------------------------------------|---------------------------------------|---|----------|
| Methyl Acetate Methyl Ethyl Ketone | Acute LC50 320000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 >500000 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 5091000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| Xylene, mixed isomers | Acute LC50 3220000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Titanium Dioxide Ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| | | | |
|---|--|-------------------------|-------|
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Section 12. Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methyl Ethyl Ketone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| | | | | | |

Section 14. Transport information

| | | | | | |
|-------------------------------|--|--|--|--|--|
| Additional information | - | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). | - | - | Emergency schedules F-D, S-U |
| | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists

- Australia inventory (AIIIC):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (CSCL):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

1813

Section 1. Identification

Product name : KRYLON® OSHA Colors
Safety Yellow

Product code : 1813

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 13.6%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 13.6%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 52.5%

GHS label elements

Hazard pictograms :



Signal word : Danger

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Section 2. Hazards identification

- Hazard statements** : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
- Precautionary statements**
- General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
- Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.
- Hazards not otherwise classified** : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|---------------------------------|-------------|------------|
| Methyl Acetate | ≥25 - ≤50 | 79-20-9 |
| Methyl Ethyl Ketone | ≥10 - ≤25 | 78-93-3 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≤10 | 106-97-8 |
| 2-methoxy-1-methylethyl acetate | ≤5 | 108-65-6 |
| Xylene, mixed isomers | ≤5 | 1330-20-7 |
| Titanium Dioxide | ≤3 | 13463-67-7 |
| Cellulose Acetate Butyrate | ≤3 | 9004-36-8 |
| Ethylbenzene | <1 | 100-41-4 |

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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Section 6. Accidental release measures

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | Exposure limits |
|---------------------|---|
| Methyl Acetate | ACGIH TLV (United States, 3/2018). TWA: 200 ppm 8 hours. TWA: 606 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 757 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 610 mg/m ³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 760 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 610 mg/m ³ 8 hours. |
| Methyl Ethyl Ketone | ACGIH TLV (United States, 3/2018). TWA: 200 ppm 8 hours. |

Section 8. Exposure controls/personal protection

| | |
|---------------------------------|---|
| Propane | <p>TWA: 590 mg/m³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours.</p> |
| Butane | <p>NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. ACGIH TLV (United States, 3/2018). Oxygen Depletion [Asphyxiant]. NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. ACGIH TLV (United States, 3/2018). STEL: 1000 ppm 15 minutes. AIHA WEEL (United States, 7/2018). TWA: 50 ppm 8 hours. ACGIH TLV (United States, 3/2018). TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| 2-methoxy-1-methylethyl acetate | |
| Xylene, mixed isomers | |
| Titanium Dioxide | <p>ACGIH TLV (United States, 3/2018). TWA: 10 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust None. ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours.</p> |
| Cellulose Acetate Butyrate | |
| Ethylbenzene | <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |

[Occupational exposure limits \(Canada\)](#)

| Ingredient name | Exposure limits |
|-----------------|---|
| Methyl acetate | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 606 mg/m³ 8 hours. 15 min OEL: 757 mg/m³ 15 minutes. 15 min OEL: 250 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2018). TWA: 200 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

Methyl ethyl ketone

STEL: 250 ppm 15 minutes.
CA Ontario Provincial (Canada, 1/2018).
 TWA: 200 ppm 8 hours.
 STEL: 250 ppm 15 minutes.
CA Quebec Provincial (Canada, 1/2014).
 TWAEV: 200 ppm 8 hours.
 TWAEV: 606 mg/m³ 8 hours.
 STEV: 250 ppm 15 minutes.
 STEV: 757 mg/m³ 15 minutes.
CA Saskatchewan Provincial (Canada, 7/2013).
 STEL: 250 ppm 15 minutes.
 TWA: 200 ppm 8 hours.
CA Alberta Provincial (Canada, 6/2018).
 15 min OEL: 300 ppm 15 minutes.
 8 hrs OEL: 200 ppm 8 hours.
 8 hrs OEL: 590 mg/m³ 8 hours.
 15 min OEL: 885 mg/m³ 15 minutes.

CA British Columbia Provincial (Canada, 7/2018).

TWA: 50 ppm 8 hours.
 STEL: 100 ppm 15 minutes.

CA Ontario Provincial (Canada, 1/2018).

TWA: 200 ppm 8 hours.
 STEL: 300 ppm 15 minutes.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 50 ppm 8 hours.
 TWAEV: 150 mg/m³ 8 hours.
 STEV: 100 ppm 15 minutes.
 STEV: 300 mg/m³ 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 300 ppm 15 minutes.
 TWA: 200 ppm 8 hours.

CA Alberta Provincial (Canada, 6/2018).

8 hrs OEL: 1000 ppm 8 hours.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 1000 ppm 8 hours.
 TWAEV: 1800 mg/m³ 8 hours.

CA Ontario Provincial (Canada, 1/2018).

TWA: 1000 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 1250 ppm 15 minutes.
 TWA: 1000 ppm 8 hours.

CA British Columbia Provincial (Canada, 7/2018). Oxygen Depletion [Asphyxiant].

CA Alberta Provincial (Canada, 6/2018).

8 hrs OEL: 1000 ppm 8 hours.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 800 ppm 8 hours.
 TWAEV: 1900 mg/m³ 8 hours.

CA Ontario Provincial (Canada, 1/2018).

TWA: 800 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 1250 ppm 15 minutes.
 TWA: 1000 ppm 8 hours.

CA British Columbia Provincial (Canada, 7/2018).

STEL: 1000 ppm 15 minutes.

Normal propane

Butane

Section 8. Exposure controls/personal protection

Xylene

CA Alberta Provincial (Canada, 6/2018).
 8 hrs OEL: 100 ppm 8 hours.
 15 min OEL: 651 mg/m³ 15 minutes.
 15 min OEL: 150 ppm 15 minutes.
 8 hrs OEL: 434 mg/m³ 8 hours.

CA British Columbia Provincial (Canada, 7/2018).

TWA: 100 ppm 8 hours.
 STEL: 150 ppm 15 minutes.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 100 ppm 8 hours.
 TWAEV: 434 mg/m³ 8 hours.
 STEV: 150 ppm 15 minutes.
 STEV: 651 mg/m³ 15 minutes.

CA Ontario Provincial (Canada, 1/2018).

STEL: 150 ppm 15 minutes.
 TWA: 100 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 150 ppm 15 minutes.
 TWA: 100 ppm 8 hours.

Titanium dioxide

CA British Columbia Provincial (Canada, 7/2018).

TWA: 3 mg/m³ 8 hours. Form: Respirable dust

TWA: 10 mg/m³ 8 hours. Form: Total dust

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 10 mg/m³ 8 hours. Form: Total dust.

CA Alberta Provincial (Canada, 6/2018).

8 hrs OEL: 10 mg/m³ 8 hours.

CA Ontario Provincial (Canada, 1/2018).

TWA: 10 mg/m³ 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 20 mg/m³ 15 minutes.
 TWA: 10 mg/m³ 8 hours.

Ethylbenzene

CA Alberta Provincial (Canada, 6/2018).

8 hrs OEL: 100 ppm 8 hours.
 8 hrs OEL: 434 mg/m³ 8 hours.
 15 min OEL: 543 mg/m³ 15 minutes.
 15 min OEL: 125 ppm 15 minutes.

CA British Columbia Provincial (Canada, 7/2018).

TWA: 20 ppm 8 hours.

CA Ontario Provincial (Canada, 1/2018).

TWA: 20 ppm 8 hours.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 100 ppm 8 hours.
 TWAEV: 434 mg/m³ 8 hours.
 STEV: 125 ppm 15 minutes.
 STEV: 543 mg/m³ 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 125 ppm 15 minutes.
 TWA: 100 ppm 8 hours.

[Occupational exposure limits \(Mexico\)](#)

Section 8. Exposure controls/personal protection

| Ingredient name | Exposure limits |
|-----------------------|---|
| Methyl Acetate | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. |
| Methyl Ethyl Ketone | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. |
| Propane | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. |
| Ethylbenzene | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 100 ppm 8 hours. |
| | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | : Liquid. |
| Color | : Not available. |
| Odor | : Not available. |
| Odor threshold | : Not available. |
| pH | : Not available. |
| Melting point/freezing point | : Not available. |
| Boiling point/boiling range | : Not available. |
| Flash point | : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup] |
| Evaporation rate | : 5.6 (butyl acetate = 1) |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Lower: 1% Upper: 16% |
| Vapor pressure | : 101.3 kPa (760 mm Hg) [at 20°C] |
| Vapor density | : 1.55 [Air = 1] |
| Relative density | : 0.81 |
| Solubility | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): <0.205 cm ² /s (<20.5 cSt) |
| Molecular weight | : Not applicable. |

Aerosol product

| | |
|--------------------|---------------|
| Type of aerosol | : Spray |
| Heat of combustion | : 33.699 kJ/g |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). |
| Incompatible materials | : No specific data. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|---------------------------------|-----------------------|---------|--------------------------|----------|
| Methyl Acetate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| Methyl Ethyl Ketone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LD50 Oral | Rat | 2737 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| 2-methoxy-1-methylethyl acetate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 8532 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------------------------------|-------------|
| Methyl Acetate | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 milligrams | - |
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Titanium Dioxide | Skin - Moderate irritant | Rabbit | - | 100 Percent | - |
| | Skin - Mild irritant | Human | - | 72 hours 300 Micrograms Intermittent | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 milligrams | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Xylene, mixed isomers | - | 3 | - |
| Titanium Dioxide | - | 2B | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|--------------------------|------------------------------------|---|
| Methyl Acetate Methyl Ethyl Ketone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation and Narcotic effects |
| Propane | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Butane | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| 2-methoxy-1-methylethyl acetate Xylene, mixed isomers | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------|------------|-------------------|----------------|
| Methyl Ethyl Ketone | Category 2 | Not determined | Not determined |
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|--|--|
| Propane Butane Xylene, mixed isomers Ethylbenzene | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo

Section 11. Toxicological information

- unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--------------------|---------------|
| Oral | 9496 mg/kg |
| Dermal | 29962.6 mg/kg |
| Inhalation (gases) | 74831.9 ppm |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---------------------------------------|---------------------------------------|---|----------|
| Methyl Acetate Methyl Ethyl Ketone | Acute LC50 320000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 >500000 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 5091000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| Xylene, mixed isomers | Acute LC50 3220000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Titanium Dioxide Ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - | 48 hours |

Section 12. Ecological information

| | | | |
|--|----------------------------------|--|----------|
| | Acute LC50 4200 µg/l Fresh water | Neonate Fish - <i>Oncorhynchus mykiss</i> | 96 hours |
|--|----------------------------------|--|----------|

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methyl Ethyl Ketone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| | | | | | |

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Date of previous issue : 1/21/2019

Version : 14 14/17

1813 KRYLON® OSHA Colors
Safety Yellow

SHW-85-NA-GHS-US

Section 14. Transport information

| | | | | | |
|-------------------------------|-----------------------|---|-----------------------|---|-------------------------------------|
| Additional information | - | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). | - | - | Emergency schedules F-D, S-U |
| | ERG No. 126 | ERG No. 126 | ERG No. 126 | | |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AICS):** Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|-------------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

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Version : 14

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

▣ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

A03403004

Section 1. Identification

Product name : KRYLON® QUIK-MARK™ Water-Based Inverted Marking Paint (APWA)
Brilliant Orange

Product code : A03403004

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 Prospect Avenue NW
Cleveland, OH 44115

Emergency telephone number of the company : US/Canada: (800) 424-9300
Mexico: CHEMTREC Mexico 01-800-681-9531. Available 24 hours and 365 days per year

Product Information Telephone Number : US/Canada: (800) 247-3266
Mexico: Not Available

Regulatory Information Telephone Number : US/Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US/Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

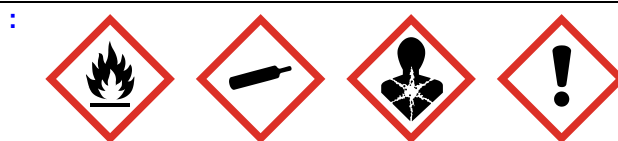
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 19.8%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 29.8%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 19.8%

GHS label elements

| | | | |
|---|--|-------------------------|------|
| Date of issue/Date of revision : 3/31/2020 | Date of previous issue : 11/27/2019 | Version : 17 | 1/16 |
| A03403004 | KRYLON® QUIK-MARK™ Water-Based Inverted Marking Paint (APWA) Brilliant Orange | SHW-85-NA-GHS-US | |

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

- : Extremely flammable aerosol.
- Contains gas under pressure; may explode if heated.
- Causes serious eye irritation.
- Causes skin irritation.
- Suspected of damaging the unborn child.
- Suspected of causing cancer.
- May be fatal if swallowed and enters airways.
- May cause respiratory irritation.
- May cause drowsiness or dizziness.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

- : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

- : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal

- : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

- : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| Toluene | ≤10 | 108-88-3 |
| Propane | ≤10 | 74-98-6 |
| Light Aliphatic Hydrocarbon | ≤10 | 64742-47-8 |
| Butane | ≤5 | 106-97-8 |
| Calcium Carbonate | ≤3 | 1317-65-3 |
| Lt. Aliphatic Hydrocarbon Solvent | ≤3 | 64742-89-8 |
| Titanium Dioxide | ≤1 | 13463-67-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.

Section 4. First aid measures

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 - carbon dioxide
 - carbon monoxide
 - metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|-----------------------------|------------|--|
| Toluene | 108-88-3 | OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 375 mg/m ³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m ³ 15 minutes. ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| Light Aliphatic Hydrocarbon | 64742-47-8 | ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2019). Explosive potential. |

Section 8. Exposure controls/personal protection

| | | |
|---|--------------------------|--|
| Calcium Carbonate | 1317-65-3 | <p>STEL: 1000 ppm 15 minutes. OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</p> <p>TWA: 15 mg/m³ 8 hours. Form: Total dust NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours. Form: Respirable fraction</p> <p>TWA: 10 mg/m³ 10 hours. Form: Total None.</p> <p>ACGIH TLV (United States, 3/2019). TWA: 10 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</p> |
| Lt. Aliphatic Hydrocarbon Solvent Titanium Dioxide | 64742-89-8 13463-67-7 | |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|---|------------|---|
| Toluene | 108-88-3 | <p>CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). Absorbed through skin. TWAEV: 50 ppm 8 hours. TWAEV: 188 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 1000 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> |
| Petroleum refining, hydrotreated light distillate | 64742-47-8 | <p>CA British Columbia Provincial (Canada, 5/2019). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.</p> |

Section 8. Exposure controls/personal protection

| | | |
|------------------|------------|--|
| Butane | 106-97-8 | <p>CA Ontario Provincial (Canada, 1/2018). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWA: 800 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 800 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Titanium dioxide | 13463-67-7 | <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust</p> <p>CA Quebec Provincial (Canada, 1/2014). TWA: 10 mg/m³ 8 hours. Form: Total dust.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 10 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|-----------------------------|------------|--|
| Toluene | 108-88-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Light Aliphatic Hydrocarbon | 64742-47-8 | ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 2 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%
Upper: 9.5%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1 [Air = 1]
- Relative density** : 0.86
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.

Section 9. Physical and chemical properties

Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
Molecular weight : Not applicable.
Aerosol product
Type of aerosol : Spray
Heat of combustion : 13.719 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|---------|--------------------------|----------|
| Toluene | LC50 Inhalation Vapor | Rat | 49 g/m ³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------|-------------|
| Toluene | Eyes - Mild irritant | Rabbit | - | 0.5 minutes | - |
| | Eyes - Mild irritant | Rabbit | - | 100 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 870 ug | - |
| | | | | 24 hours 2 | - |
| | Skin - Mild irritant | Pig | - | mg | - |
| | | | | 24 hours 250 | - |
| Titanium Dioxide | Skin - Mild irritant | Rabbit | - | UI | - |
| | Skin - Moderate irritant | Rabbit | - | 435 mg | - |
| | | | | 24 hours 20 | - |
| | | | | mg | - |
| | Skin - Moderate irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Human | - | 72 hours 300 | - |
| | | | ug l | | |

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Toluene | - | 3 | - |
| Titanium Dioxide | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|--------------------------|------------------------------------|--|
| Toluene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Propane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Light Aliphatic Hydrocarbon | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Butane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Calcium Carbonate | Category 3 | Not applicable. | Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|----------------|
| Toluene | Category 2 | Not determined | Not determined |
| Propane | Category 2 | Not determined | Not determined |
| Light Aliphatic Hydrocarbon | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|-----------------------------------|--------------------------------|
| Toluene | ASPIRATION HAZARD - Category 1 |
| Propane | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Section 11. Toxicological information

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.

Section 11. Toxicological information

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|-------|--------------|
| Oral | 5112.5 mg/kg |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|---------------------------------------|---|----------|
| Toluene Light Aliphatic Hydrocarbon Lt. Aliphatic Hydrocarbon Solvent Titanium Dioxide | Acute EC50 12500 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 11600 µg/l Fresh water | Crustaceans - Gammarus pseudolimnaeus - Adult | 48 hours |
| | Acute EC50 6000 µg/l Fresh water | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 5500 µg/l Fresh water | Fish - Oncorhynchus kisutch - Fry | 96 hours |
| | Chronic NOEC 1000 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Acute LC50 2200 µg/l Fresh water | Fish - Lepomis macrochirus | 4 days |
| | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Toluene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--------------------------------------|--------------------|------------|-----------|
| Toluene | - | 90 | low |
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. 126 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. 126 | - ERG No. 126 | - | Emergency schedules F-D, S-U |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists

- : **Australia inventory (AICS):** Not determined.
- : **China inventory (IECSC):** Not determined.
- : **Japan inventory (ENCS):** Not determined.
- : **Japan inventory (ISHL):** Not determined.
- : **Korea inventory (KECI):** Not determined.
- : **New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- : **Philippines inventory (PICCS):** Not determined.
- : **Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- : **Thailand inventory:** Not determined.
- : **Turkey inventory:** Not determined.
- : **Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 2 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION (Unborn child) - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

- Date of printing** : 3/31/2020
- Date of issue/Date of revision** : 3/31/2020
- Date of previous issue** : 11/27/2019

Section 16. Other information

- Version** : 17
- Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

K09213

Section 1. Identification

Product name : KRYLON® RUST TOUGH® Enamel (aerosol)
Aluminum

Product code : K09213

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 21.8%

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 51.4%

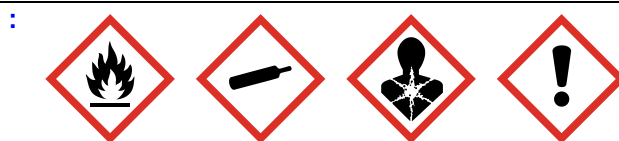
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 51.4%

GHS label elements

| | | | |
|---|--|-------------------------|------|
| Date of issue/Date of revision : 8/12/2019 | Date of previous issue : 5/22/2019 | Version : 7 | 1/17 |
| K09213 | KRYLON® RUST TOUGH® Enamel (aerosol) Aluminum | SHW-85-NA-GHS-US | |

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

General

: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Date of issue/Date of revision

: 8/12/2019

Date of previous issue

: 5/22/2019

Version : 7

2/17

K09213

KRYLON® RUST TOUGH® Enamel (aerosol)
Aluminum

SHW-85-NA-GHS-US

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|------------------------------------|-------------|------------|
| Cyclohexane | ≥10 - ≤25 | 110-82-7 |
| Ethylbenzene | ≥10 - ≤25 | 100-41-4 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≥10 - ≤25 | 106-97-8 |
| Acetone | ≥10 - ≤25 | 67-64-1 |
| Aluminum | ≤5 | 7429-90-5 |
| Med. Aliphatic Hydrocarbon Solvent | ≤3 | 64742-88-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

| | | | |
|---|--|--------------------|------|
| Date of issue/Date of revision : 8/12/2019 | Date of previous issue : 5/22/2019 | Version : 7 | 3/17 |
| K09213 | KRYLON® RUST TOUGH® Enamel (aerosol) Aluminum | SHW-85-NA-GHS-US | |

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|-----------------|-----------|---|
| Cyclohexane | 110-82-7 | ACGIH TLV (United States, 3/2018). TWA: 100 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 300 ppm 10 hours. TWA: 1050 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 300 ppm 8 hours. TWA: 1050 mg/m ³ 8 hours. |
| Ethylbenzene | 100-41-4 | ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2018). Oxygen Depletion [Asphyxiant]. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2018). STEL: 1000 ppm 15 minutes. |
| Acetone | 67-64-1 | ACGIH TLV (United States, 3/2018). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours. |
| Aluminum | 7429-90-5 | NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total ACGIH TLV (United States, 3/2018). |

Section 8. Exposure controls/personal protection

| | | |
|------------------------------------|------------|--|
| Med. Aliphatic Hydrocarbon Solvent | 64742-88-7 | <p>TWA: 1 mg/m³ 8 hours. Form: Respirable fraction OSHA PEL (United States, 5/2018). TWA: 5 mg/m³, (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m³, (as Al) 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.</p> |
|------------------------------------|------------|--|

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|----------|--|
| Cyclohexane | 110-82-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 344 mg/m³ 8 hours. 8 hrs OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2018). TWA: 100 ppm 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 100 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 300 ppm 8 hours. TWAEV: 1030 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. CA British Columbia Provincial (Canada, 7/2018). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 1000 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013).</p> |

Section 8. Exposure controls/personal protection

| | | |
|---|------------|--|
| Butane | 106-97-8 | <p>STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2018). Oxygen Depletion [Asphyxiant]. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWA: 800 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 800 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2018).</p> |
| Acetone | 67-64-1 | <p>STEL: 1000 ppm 15 minutes. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. CA British Columbia Provincial (Canada, 7/2018). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Ontario Provincial (Canada, 1/2018). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWA: 500 ppm 8 hours. TWA: 1190 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2380 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p> |
| Medium aliphatic solvent naphtha (petroleum) C9-C12 | 64742-88-7 | <p>CA Ontario Provincial (Canada, 1/2018). TWA: 525 mg/m³ 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|--------------|--------------|--|
| Cyclohexane | 110-82-7 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Acetone | 67-64-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes. |

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 6.1 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.

Section 9. Physical and chemical properties

- Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 12.8%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.73
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 31.327 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|---------|--------------------------|----------|
| Cyclohexane | LD50 Oral | Rat | 6240 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| Acetone | LD50 Oral | Rat | 5800 mg/kg | - |

Irritation/Corrosion

Section 11. Toxicological information

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------------------|-------------|
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 milligrams | - |
| Acetone | Eyes - Mild irritant | Human | - | 186300 parts per million | - |
| | Eyes - Mild irritant | Rabbit | - | 10 microliters | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 20 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 395 milligrams | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------------------|--------------------------|------------------------------------|--|
| Cyclohexane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Propane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Butane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Acetone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Med. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------------------|------------|-------------------|----------------|
| Cyclohexane | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Acetone | Category 2 | Not determined | Not determined |
| Med. Aliphatic Hydrocarbon Solvent | Category 1 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|------------------------------------|--------------------------------|
| Cyclohexane | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Med. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Section 11. Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|---------------|
| Oral | 15958.4 mg/kg |
| Inhalation (vapors) | 31.2 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------------|-------------------------------------|---|------------------------------|
| Cyclohexane Ethylbenzene | Acute LC50 4530 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| Acetone | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 6000000 µg/l Fresh water | Crustaceans - Gammarus pulex | 48 hours |
| | Acute LC50 6900 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |
| | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| | Aluminum | Chronic NOEC 0.1 mg/l Fresh water | Fish - Fundulus heteroclitus |
| Acute LC50 38000 µg/l Fresh water | | Daphnia - Daphnia magna | 48 hours |
| Acute LC50 120 µg/l Fresh water | | Fish - Oncorhynchus mykiss - Embryo | 96 hours |
| Chronic NOEC 9 mg/l Fresh water | | Aquatic plants - Ceratophyllum demersum | 3 days |

Section 12. Ecological information

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Ethylbenzene | - | - | Readily |
| Acetone | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Cyclohexane | - | 167 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| | | | | | |

Section 14. Transport information

| | | | | | |
|-------------------------------|-----------------------|---|-----------------------|---|-------------------------------------|
| Additional information | - | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). | - | - | Emergency schedules F-D, S-U |
| | ERG No. 126 | ERG No. 126 | ERG No. 126 | | |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

- Proper shipping name :** Not available.
- Ship type :** Not available.
- Pollution category :** Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

- International lists :**
- Australia inventory (AICS):** Not determined.
 - China inventory (IECSC):** Not determined.
 - Japan inventory (ENCS):** Not determined.
 - Japan inventory (ISHL):** Not determined.
 - Korea inventory (KECI):** Not determined.
 - New Zealand Inventory of Chemicals (NZIoC):** Not determined.
 - Philippines inventory (PICCS):** Not determined.
 - Taiwan Chemical Substances Inventory (TCSI):** Not determined.
 - Thailand inventory:** Not determined.
 - Turkey inventory:** Not determined.
 - Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

Date of printing : 8/12/2019

Date of issue/Date of revision : 8/12/2019

Date of previous issue : 5/22/2019

Version : 7

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

K09200

Section 1. Identification

Product name : KRYLON® RUST TOUGH® Enamel (aerosol)
Gloss White

Product code : K09200

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

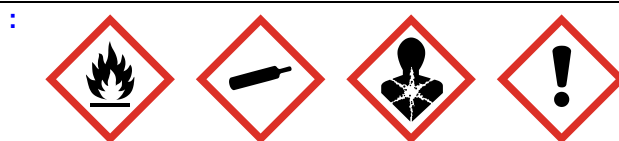
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 28%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 32%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 32%

GHS label elements

| | | | |
|--|---|-------------------------|------|
| Date of issue/Date of revision : 12/19/2019 | Date of previous issue : 11/27/2019 | Version : 16 | 1/18 |
| K09200 | KRYLON® RUST TOUGH® Enamel (aerosol) Gloss White | SHW-85-NA-GHS-US | |

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

- : Extremely flammable aerosol.
- Contains gas under pressure; may explode if heated.
- Causes serious eye irritation.
- Causes skin irritation.
- Suspected of causing cancer.
- May be fatal if swallowed and enters airways.
- May cause respiratory irritation.
- May cause drowsiness or dizziness.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General

- : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

- : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

- : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal

- : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

- : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| Acetone | ≥10 - ≤25 | 67-64-1 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| n-Butyl Acetate | ≥10 - ≤25 | 123-86-4 |
| Butane | ≤10 | 106-97-8 |
| Lt. Aliphatic Hydrocarbon Solvent | ≤10 | 64742-89-8 |
| Titanium Dioxide | ≤10 | 13463-67-7 |
| Ethyl 3-Ethoxypropionate | ≤5 | 763-69-9 |
| Barium Sulfate | ≤3 | 7727-43-7 |
| Xylene, mixed isomers | ≤3 | 1330-20-7 |
| Ethylbenzene | ≤0.3 | 100-41-4 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 4. First aid measures

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical

: Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

- carbon dioxide
- carbon monoxide
- sulfur oxides
- phosphorus oxides
- metal oxide/oxides

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|---|--------------------------|--|
| Acetone | 67-64-1 | ACGIH TLV (United States, 3/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| n-Butyl Acetate | 123-86-4 | NIOSH REL (United States, 10/2016). TWA: 150 ppm 10 hours. TWA: 710 mg/m ³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2019). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Lt. Aliphatic Hydrocarbon Solvent Titanium Dioxide | 64742-89-8 13463-67-7 | None. ACGIH TLV (United States, 3/2019). TWA: 10 mg/m ³ 8 hours. OSHA PEL (United States, 5/2018). |

Section 8. Exposure controls/personal protection

| | | |
|--|-----------------------|---|
| Ethyl 3-Ethoxypropionate Barium Sulfate | 763-69-9 7727-43-7 | TWA: 15 mg/m ³ 8 hours. Form: Total dust None. ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust |
| Xylene, mixed isomers | 1330-20-7 | ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Ethylbenzene | 100-41-4 | ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|---------|--|
| Acetone | 67-64-1 | CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1200 mg/m ³ 8 hours. 15 min OEL: 1800 mg/m ³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. CA British Columbia Provincial (Canada, 5/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Ontario Provincial (Canada, 1/2018). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWA/EV: 500 ppm 8 hours. TWA/EV: 1190 mg/m ³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m ³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours. |
| Normal propane | 74-98-6 | CA Alberta Provincial (Canada, 6/2018). |

Section 8. Exposure controls/personal protection

| | | |
|----------------------|------------|--|
| Normal butyl acetate | 123-86-4 | <p>8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 1000 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m³ 15 minutes. 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. STEV: 200 ppm 15 minutes. STEV: 950 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p> |
| Butane | 106-97-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 800 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Titanium dioxide | 13463-67-7 | <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m³ 8 hours. Form: Total dust. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018).</p> |

Section 8. Exposure controls/personal protection

| | | |
|--------------|-----------|--|
| Xylene | 1330-20-7 | <p>TWA: 10 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|-----------------|----------|--|
| Acetone | 67-64-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| n-Butyl Acetate | 123-86-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. |

Section 8. Exposure controls/personal protection

| | | |
|-----------------------|-----------|---|
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | : Liquid. |
| Color | : Not available. |
| Odor | : Not available. |
| Odor threshold | : Not available. |
| pH | : 7 |
| Melting point/freezing point | : Not available. |
| Boiling point/boiling range | : Not available. |
| Flash point | : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup] |
| Evaporation rate | : 5.6 (butyl acetate = 1) |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Lower: 0.9% Upper: 12.8% |
| Vapor pressure | : 101.3 kPa (760 mm Hg) [at 20°C] |
| Vapor density | : 1.55 [Air = 1] |
| Relative density | : 0.76 |
| Solubility | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): <0.205 cm ² /s (<20.5 cSt) |
| Molecular weight | : Not applicable. |
| Aerosol product | |
| Type of aerosol | : Spray |
| Heat of combustion | : 28.397 kJ/g |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). |
| Incompatible materials | : No specific data. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--------------------------|-----------------------|---------|--------------------------|----------|
| Acetone | LD50 Oral | Rat | 5800 mg/kg | - |
| n-Butyl Acetate | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10768 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| Ethyl 3-Ethoxypropionate | LD50 Oral | Rat | 3200 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--------------------------|--------------------------|---------|-------|-------------------|-------------|
| Acetone | Eyes - Mild irritant | Human | - | 186300 ppm | - |
| | Eyes - Mild irritant | Rabbit | - | 10 UI | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 20 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| n-Butyl Acetate | Skin - Mild irritant | Rabbit | - | 395 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Titanium Dioxide | Skin - Mild irritant | Human | - | 72 hours 300 ug l | - |
| Ethyl 3-Ethoxypropionate | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Ethylbenzene | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Titanium Dioxide | - | 2B | - |
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Section 11. Toxicological information

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|--------------------------|------------------------------------|--|
| Acetone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Propane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| n-Butyl Acetate | Category 3 | Not applicable. | Narcotic effects |
| Butane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|----------------|
| Acetone | Category 2 | Not determined | Not determined |
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|-----------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--------------------|----------------|
| Oral | 47997.54 mg/kg |
| Dermal | 69588.12 mg/kg |
| Inhalation (gases) | 316309.62 ppm |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------------|---------------------------------------|---|----------|
| Acetone | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 6000000 µg/l Fresh water | Crustaceans - Gammarus pulex | 48 hours |
| | Acute LC50 6900 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |
| | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| n-Butyl Acetate | Chronic NOEC 0.1 mg/l Fresh water | Fish - Fundulus heteroclitus | 4 weeks |
| | Acute LC50 32 mg/l Marine water | Crustaceans - Artemia salina | 48 hours |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 18000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Titanium Dioxide | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| Barium Sulfate | Acute EC50 634 mg/l Fresh water | Crustaceans - Cypris subglobosa | 48 hours |
| Xylene, mixed isomers | Acute EC50 32 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Acetone | - | - | Readily |
| n-Butyl Acetate | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. 126 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. 126 | - ERG No. 126 | - | Emergency schedules F-D, S-U |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists

- : **Australia inventory (AICS):** Not determined.
- : **China inventory (IECSC):** Not determined.
- : **Japan inventory (ENCS):** Not determined.
- : **Japan inventory (ISHL):** Not determined.
- : **Korea inventory (KECI):** Not determined.
- : **New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- : **Philippines inventory (PICCS):** Not determined.
- : **Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- : **Thailand inventory:** Not determined.
- : **Turkey inventory:** Not determined.
- : **Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

- Date of printing** : 12/19/2019
- Date of issue/Date of revision** : 12/19/2019
- Date of previous issue** : 11/27/2019

Section 16. Other information

- Version** : 16
- Key to abbreviations** :
- ATE = Acute Toxicity Estimate
 - BCF = Bioconcentration Factor
 - GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 - IATA = International Air Transport Association
 - IBC = Intermediate Bulk Container
 - IMDG = International Maritime Dangerous Goods
 - LogPow = logarithm of the octanol/water partition coefficient
 - MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 - N/A = Not available
 - SGG = Segregation Group
 - UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

K09200

Section 1. Identification

Product name : KRYLON® RUST TOUGH® Enamel (aerosol)
Gloss White

Product code : K09200

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

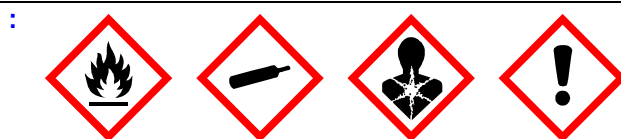
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 31% (oral), 35% (dermal), 35% (inhalation)

GHS label elements

| | | | |
|---|---|-------------------------|------|
| Date of issue/Date of revision : 1/11/2021 | Date of previous issue : 10/13/2020 | Version : 20.01 | 1/20 |
| K09200 | KRYLON® RUST TOUGH® Enamel (aerosol) Gloss White | SHW-85-NA-GHS-US | |

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General

: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

: DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Date of issue/Date of revision

: 1/11/2021

Date of previous issue

: 10/13/2020

Version : 20.01

2/20

K09200

KRYLON® RUST TOUGH® Enamel (aerosol)
Gloss White

SHW-85-NA-GHS-US

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|--------------------------------------|-------------|------------|
| Propane | ≥10 - ≤25 | 74-98-6 |
| Acetone | ≥10 - ≤25 | 67-64-1 |
| n-Butyl Acetate | ≥10 - ≤25 | 123-86-4 |
| Lt. Aliphatic Hydrocarbon Solvent | ≥10 - ≤25 | 64742-89-8 |
| Butane | ≤10 | 106-97-8 |
| Titanium Dioxide | ≤10 | 13463-67-7 |
| Ethyl 3-Ethoxypropionate | ≤5 | 763-69-9 |
| Barium Sulfate | ≤3 | 7727-43-7 |
| Xylene, mixed isomers | ≤3 | 1330-20-7 |
| Ethylbenzene | <1 | 100-41-4 |
| Hydrotreated Heavy Petroleum Naphtha | ≤0.3 | 64742-48-9 |
| Unsaturated Fatty Acids | ≤0.3 | 85711-46-2 |
| Zirconium 2-Ethylhexanoate | ≤0.3 | 22464-99-9 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|-----------------|---------|---|
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| Acetone | 67-64-1 | ACGIH TLV (United States, 3/2020). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). |

Section 8. Exposure controls/personal protection

| | | |
|---|--|---|
| n-Butyl Acetate | 123-86-4 | <p>TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| Lt. Aliphatic Hydrocarbon Solvent Butane | 64742-89-8 106-97-8 | <p>None. NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. ACGIH TLV (United States, 3/2020). TWA: 10 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</p> |
| Titanium Dioxide | 13463-67-7 | <p>None. ACGIH TLV (United States, 3/2020). TWA: 10 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust</p> |
| Ethyl 3-Ethoxypropionate Barium Sulfate | 763-69-9 7727-43-7 | <p>None. ACGIH TLV (United States, 3/2020). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p> |
| Xylene, mixed isomers | 1330-20-7 | <p>ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Hydrotreated Heavy Petroleum Naphtha Unsaturated Fatty Acids Zirconium 2-Ethylhexanoate | 64742-48-9 85711-46-2 22464-99-9 | <p>None. None. ACGIH TLV (United States, 3/2020).</p> |

Section 8. Exposure controls/personal protection

| | | |
|--|--|---|
| | | <p>TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. NIOSH REL (United States, 10/2016). TWA: 5 mg/m³, (as Zr) 10 hours. STEL: 10 mg/m³, (as Zr) 15 minutes. OSHA PEL (United States, 5/2018). TWA: 5 mg/m³, (as Zr) 8 hours.</p> |
|--|--|---|

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|------------------------|--------------|---|
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 1000 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> |
| acetone | 67-64-1 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2019). TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p> |
| n-butyl acetate | 123-86-4 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m³ 15 minutes. 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.</p> |

Section 8. Exposure controls/personal protection

| | | |
|------------------|------------|--|
| Butane | 106-97-8 | <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. STEV: 200 ppm 15 minutes. STEV: 950 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 800 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Titanium dioxide | 13463-67-7 | <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 10 mg/m³ 8 hours. Form: Total dust TWA: 3 mg/m³ 8 hours. Form: respirable fraction</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 10 mg/m³ 8 hours. Form: Total dust.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> |
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013).</p> |

Section 8. Exposure controls/personal protection

| | | |
|----------------------------|------------|---|
| Ethylbenzene | 100-41-4 | <p>STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWA EV: 100 ppm 8 hours. TWA EV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Zirconium 2-Ethylhexanoate | 22464-99-9 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 5 mg/m³, (as Zr) 8 hours. 15 min OEL: 10 mg/m³, (as Zr) 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 5 mg/m³, (as Zr) 8 hours. STEL: 10 mg/m³, (as Zr) 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWA EV: 5 mg/m³, (as Zr) 8 hours. STEV: 10 mg/m³, (as Zr) 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). STEL: 10 mg/m³, (as Zr) 15 minutes. TWA: 5 mg/m³, (as Zr) 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|----------------------------|------------|---|
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Acetone | 67-64-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes. |
| n-Butyl Acetate | 123-86-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |
| Zirconium 2-Ethylhexanoate | 22464-99-9 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 5 mg/m ³ , (as Zr) 8 hours. STEL: 10 mg/m ³ , (as Zr) 15 minutes. |

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)

Section 9. Physical and chemical properties

- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%
Upper: 12.8%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.79
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
 - Type of aerosol** : Spray
 - Heat of combustion** : 26.837 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--------------------------------------|-----------------------|---------|--------------------------|----------|
| Acetone | LD50 Oral | Rat | 5800 mg/kg | - |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| n-Butyl Acetate | LD50 Oral | Rat | 10768 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| Butane | LD50 Oral | Rat | 3200 mg/kg | - |
| | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| Ethyl 3-Ethoxypropionate | LD50 Oral | Rat | 4300 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Xylene, mixed isomers | LD50 Oral | Rat | 3500 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 8500 mg/m ³ | 4 hours |
| Ethylbenzene | LD50 Oral | Rat | >6 g/kg | - |
| | LD50 Dermal | Rabbit | >5 g/kg | - |
| Hydrotreated Heavy Petroleum Naphtha | LD50 Oral | Rat | >6 g/kg | - |
| | LD50 Dermal | Rabbit | >5 g/kg | - |
| Zirconium 2-Ethylhexanoate | LD50 Oral | Rat | >6 g/kg | - |
| | LD50 Dermal | Rabbit | >5 g/kg | - |

Section 11. Toxicological information

| | | | | |
|--|-----------|-----|---------|---|
| | LD50 Oral | Rat | >5 g/kg | - |
|--|-----------|-----|---------|---|

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--------------------------|--------------------------|---------|-------|-------------------|-------------|
| Acetone | Eyes - Mild irritant | Human | - | 186300 ppm | - |
| | Eyes - Mild irritant | Rabbit | - | 10 UI | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 20 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 395 mg | - |
| n-Butyl Acetate | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 72 hours 300 ug l | - |
| Titanium Dioxide | Skin - Mild irritant | Human | - | 24 hours 500 mg | - |
| Ethyl 3-Ethoxypropionate | Skin - Mild irritant | Rabbit | - | 87 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 24 hours 5 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 8 hours 60 UI | - |
| | Skin - Mild irritant | Rat | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| Ethylbenzene | Skin - Moderate irritant | Rabbit | - | 500 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 15 mg | - |
| | Skin - Mild irritant | Rabbit | - | | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Titanium Dioxide | - | 2B | - |
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|--------------------------------------|--------------------------|-------------------|--|
| Propane | Category 3 | - | Respiratory tract irritation |
| Acetone | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| n-Butyl Acetate | Category 3 | - | Narcotic effects |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | - - | Respiratory tract irritation |
| Butane | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 | - | Respiratory tract irritation |
| Hydrotreated Heavy Petroleum Naphtha | Category 3 Category 3 | - - | Narcotic effects Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------------------------------------|------------|-------------------|---------------|
| Propane | Category 2 | - | - |
| Acetone | Category 2 | - | - |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | - | - |
| Butane | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |
| Hydrotreated Heavy Petroleum Naphtha | Category 2 | - | - |

Aspiration hazard

| Name | Result |
|--------------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Hydrotreated Heavy Petroleum Naphtha | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

| | | | |
|---|---|-------------------------|-------|
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Section 11. Toxicological information

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

| Route | ATE value |
|--------------------|----------------|
| Oral | 43224.95 mg/kg |
| Dermal | 47927.09 mg/kg |
| Inhalation (gases) | 291919.55 ppm |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------------|---------------------------------------|---|----------|
| Acetone | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 4.42589 ml/L Marine water | Crustaceans - Acartia tonsa - Copepodid | 48 hours |
| | Acute LC50 7460000 µg/l Fresh water | Daphnia - Daphnia cucullata | 48 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |
| | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| n-Butyl Acetate | Chronic NOEC 5 µg/l Marine water | Fish - Gasterosteus aculeatus - Larvae | 42 days |
| | Acute LC50 32 mg/l Marine water | Crustaceans - Artemia salina | 48 hours |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 18000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Titanium Dioxide | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| | Acute EC50 634 mg/l Fresh water | Crustaceans - Cypris subglobosa | 48 hours |
| Barium Sulfate | Acute EC50 32 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Xylene, mixed isomers | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Acetone | - | - | Readily |
| n-Butyl Acetate | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| | | | |
|---|---|-------------------------|-------|
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Section 12. Ecological information

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--------------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| Hydrotreated Heavy Petroleum Naphtha | - | 10 to 2500 | high |
| Zirconium 2-Ethylhexanoate | - | 2.96 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|---|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. | - ERG No. | - | Emergency schedules F-D, S-U |

Section 14. Transport information

| | | | | | |
|--|--|--|--|---|---|
| | 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. |
|--|--|--|--|---|---|

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

- International lists :**
- Australia inventory (AICS):** Not determined.
 - China inventory (IECSC):** Not determined.
 - Japan inventory (ENCS):** Not determined.
 - Japan inventory (ISHL):** Not determined.
 - Korea inventory (KECI):** Not determined.
 - New Zealand Inventory of Chemicals (NZIoC):** Not determined.
 - Philippines inventory (PICCS):** Not determined.
 - Taiwan Chemical Substances Inventory (TCSI):** Not determined.
 - Thailand inventory:** Not determined.
 - Turkey inventory:** Not determined.
 - Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

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Version : 20.01

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of

| | | | |
|--|--|------------------------|-------|
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Section 16. Other information

sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

LUBRI-JOINT®

LA-CO Industries, Inc.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 09/27/2012 Revision date: 04/29/2015 Supersedes: 11/21/2014
Version: 3.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : LUBRI-JOINT®

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Lubricant

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com

1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard

Eye Irrit. 2B H320

2.2. Label elements

GHS-US labelling

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H320 - Causes eye irritation
Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % (w/w) | GHS-US classification |
|--|---------------------|---------|-----------------------|
| Fatty acids, vegetable-oil, potassium sodium salts | (CAS No) 68606-06-4 | 15 - 25 | Eye Irrit. 2B, H320 |

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact : Wash with plenty of soap and water.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : In high concentrations : Inhalation may cause: irritation, coughing, shortness of breath.

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Symptoms/injuries after eye contact : Causes eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. Foam.
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No particular fire or explosion hazard.
Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.
Methods for cleaning up : Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid breathing vapours. Avoid contact with skin and eyes.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool.
Incompatible products : Strong oxidizing agents. Strong acids. Strong bases.
Incompatible materials : Heat sources.

7.3. Specific end use(s)

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|--------------|----------------|
| LUBRI-JOINT® | |
| ACGIH | Not applicable |

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| LUBRI-JOINT® | |
|---|----------------|
| OSHA | Not applicable |
| Fatty acids, vegetable-oil, potassium sodium salts (68606-06-4) | |
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : Avoid creating mist or spray. Avoid splashing. Either local exhaust or general room ventilation is usually required. |
| Personal protective equipment | : Avoid all unnecessary exposure. |
| Hand protection | : In case of repeated or prolonged contact wear gloves. nitrile rubber gloves. |
| Eye protection | : In case of splashing or aerosol production: protective goggles. |
| Respiratory protection | : In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges. |
| Other information | : Do not eat, drink or smoke when using this product. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-----------------------------|
| Physical state | : Liquid |
| Appearance | : Paste. |
| Colour | : Off-white. |
| Odour | : bland. |
| Odour threshold | : No data available |
| pH | : 9.5% solution |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : < 0 °C |
| Boiling point | : No data available |
| Flash point | : > 104 °C |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 1.2 |
| Solubility | : Soluble in water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : Product is not explosive. |
| Oxidising properties | : No oxidizing properties. |
| Explosive limits | : No data available |

9.2. Other information

| | |
|-------------|---------|
| VOC content | : < 1 % |
|-------------|---------|

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.6. Hazardous decomposition products

May release flammable gases. Burning produces irritating, toxic and noxious fumes. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| LUBRI-JOINT® | |
|----------------|------------------------------------|
| LD50 oral rat | 226655 mg/kg estimate (calculated) |
| ATE CLP (oral) | 226655.000 mg/kg bodyweight |

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms

Symptoms/injuries after inhalation : In high concentrations : Inhalation may cause: irritation, coughing, shortness of breath.

Symptoms/injuries after eye contact : Causes eye irritation.

Likely routes of exposure : Skin and eye contact

SECTION 12: Ecological information

12.1 Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR) : Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

| |
|---|
| Fatty acids, vegetable-oil, potassium sodium salts (68606-06-4) |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

LUBRI-JOINT®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.2. International regulations

CANADA

Fatty acids, vegetable-oil, potassium sodium salts (68606-06-4)

Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

Fatty acids, vegetable-oil, potassium sodium salts (68606-06-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

LUBRI-JOINT®

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

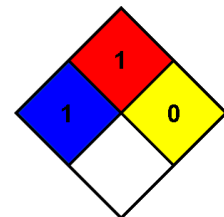
All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations

No additional information available

SECTION 16: Other information

| | |
|----------------------------|--|
| Indication of changes | : GHS classification information. Revised format. Revised sections: 1 - 16. |
| Data sources | : European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database . Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html . |
| Abbreviations and acronyms | : ACGIH (American Conference of Government Industrial Hygienists). ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. CLP: Classification, Labelling, Packaging. EC50: Environmental Concentration associated with a response by 50% of the test population. GHS: Globally Harmonized System (of Classification and Labeling of Chemicals). LD50: Lethal Dose for 50% of the test population. PBT: Persistent, Bioaccumulative, Toxic. TSCA: Toxic Substances Control Act. |
| Other information | : None. |
| NFPA health hazard | : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given. |
| NFPA fire hazard | : 1 - Must be preheated before ignition can occur. |
| NFPA reactivity | : 0 - Normally stable, even under fire exposure conditions, and not reactive with water. |



Full text of H-phrases:

| | |
|---------------|--|
| Eye Irrit. 2B | Serious eye damage/eye irritation, Category 2B |
| H320 | Causes eye irritation |

SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SAFETY DATA SHEET

Lysol® Disinfectant Spray - All Scents



HEALTH • HYGIENE • HOME

1. Product and company identification

Product name : Lysol® Disinfectant Spray - All Scents**Distributed by** : Reckitt Benckiser (Canada) Inc.
1680 Tech Avenue, Unit #2
Mississauga, Ontario L4W 5S9
CANADA
Telephone: +1 905 283 7000

Reckitt Benckiser LLC.
Morris Corporate Center IV
399 Interpace Parkway (P.O. Box 225)
Parsippany, New Jersey 07054-0225
+1 973 404 2600**Emergency telephone number (Medical)** : 1-800-338-6167**Emergency telephone number (Transport)** : 1-800-424-9300 (U.S. & Canada) CHEMTREC
Outside U.S. and Canada (North America), call Chemtrec:703-527-3887**Website:** : <http://www.rbnainfo.com>**Product use** : Disinfectant.

This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure, in accordance with the requirements of USDOL Occupational Safety and Health Administration.

This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations, and shown in Section 15 of this SDS.

SDS # : D0224478 v12.0**Formulation #:** : 1178-172 (0175917 v1.0 & 0242193 v2.0) Crisp Linen
1338-015 (0175918 v1.0 & 0258756 v1.0) Spring Waterfall
1338-018 (0175934 v1.0) Green Apple / Green Apple Breeze
1338-021 (0175938 v1.0) Crisp Berry
1338-019 (0175919 v1.0) Country
1338-026 (0175929 v1.0) Country Morning Breeze
1338-017 (0172927 v1.0) Lemon Breeze**DIN #** : 02395614**UPC Code / Sizes** : Tin plate steel cans
Crisp Linen - 6 oz, 12.5 oz, 19 oz, 350g
"To Go" Crisp Linen - 1 oz, 28 g
Spring Waterfall - 12.5 oz, 19 oz, 350g
Green Apple - 350g
Crisp Berry - 12.5 oz, 19 oz, 350g
Country - 350g
Country Morning Breeze - 350g
Lemon Breeze - 200g, 350g and 539g

D0224478 v12.0

1. Product and company identification

2. Hazards identification

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 2
GASES UNDER PRESSURE - Compressed gas

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Flammable aerosol.
Contains gas under pressure; may explode if heated.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

Response : Not applicable.

Storage : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal : Not applicable.

Supplemental label elements : None known.

Hazards not otherwise classified : None known.

3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | % | CAS number |
|-----------------|--------|------------|
| ethanol | 60-80 | 64-17-5 |
| butane | 5 - 10 | 106-97-8 |
| propane | 1 - 5 | 74-98-6 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : May cause eye irritation upon direct contact with eyes.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Control

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|--|
| ethanol | <p>ACGIH TLV (United States, 3/2015). STEL: 1000 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.</p> |
| butane | <p>OSHA PEL 1989 (United States, 3/1989). TWA: 800 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. ACGIH TLV (United States, 6/2013). STEL: 1000 ppm 15 minutes.</p> |
| propane | <p>OSHA PEL 1989 (United States, 3/1989).</p> |

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8. Exposure controls/personal protection

TWA: 1000 ppm 8 hours.
 TWA: 1800 mg/m³ 8 hours.
NIOSH REL (United States, 10/2013).
 TWA: 1000 ppm 10 hours.
 TWA: 1800 mg/m³ 10 hours.
OSHA PEL (United States, 2/2013).
 TWA: 1000 ppm 8 hours.
 TWA: 1800 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Use chemical resistant gloves classified under Standard EN374 - Protective gloves against chemicals and micro-organisms.

Examples of preferred glove barrier materials include: Nitrile/butadiene rubber ("nitrile" or "NBR"); Chlorinated polyethylene; Butyl rubber; Polyethylene.

Examples of acceptable glove barrier materials include: Natural rubber ("latex"); Neoprene; Viton; Ethyl vinyl alcohol laminate ("EVAL").

A glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended.

Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/ puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. Considering the parameters specified by the glove manufacturer, checks during use should be carried out to ensure the gloves are still retaining their protective properties.

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8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

9. Physical and chemical properties

Appearance

- Physical state** : Liquid. [Aerosol.]
- Color** : Clear.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 10.8 to 11.8 [Conc. (% w/w): 100%]
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: 25.6°C (78.1°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.8667 to 0.8967 g/cm³ [20 to 25°C]
- Solubility** : Easily soluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.
- Flow time (ISO 2431)** : Not available.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 17.99 kJ/g
- Ignition distance** : <45.72 cm

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10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-----------------------|---------|--------------------------|----------------------------------|
| Ethyl alcohol butane * Lysol® Brand Disinfectant Spray, All Scents (Aerosol)_D0224478_CANADA | LC50 Inhalation Vapor | Rat | 124700 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 7 g/kg | - |
| | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| | LC50 Inhalation Vapor | Rat | >2.12 mg/l | 4 hours |
| | LD50 Dermal | Rat | >5050 mg/kg | Maximum attainable concentration |
| | LD50 Oral | Rat | >5050 mg/kg | - |

- Conclusion/Summary** : Not classified Harmful. *Information is based on toxicity test result of the concentrate of a similar product.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|---------|----------|-------------------------|-------------|
| Ethyl alcohol * Lysol® Brand Disinfectant Spray, All Scents (Aerosol)_D0224478_CANADA | Eyes - Moderate irritant | Rabbit | - | 0.066666667 minutes | - |
| | Eyes - Mild irritant | Rabbit | - | 100 milligrams | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 100 microliters | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 400 milligrams | - |
| | Eyes - Cornea opacity | Rabbit | 0 | 24 hours 20 milligrams | 4 days |
| Skin - Primary dermal irritation index (PDII) | Rabbit | 0.3 | 72 hours | 72 hours | |

Conclusion/Summary

- Skin** : Slightly irritating to the skin. *Information is based on toxicity test result of the concentrate of a similar product.
- Eyes** : Moderately irritating to eyes. *Information is based on toxicity test result of the concentrate of a similar product.
- Respiratory** : Based on available data, the classification criteria are not met.

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11. Toxicological information

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|------------|-----------------|
| * Lysol® Brand Disinfectant Spray, All Scents (Aerosol)_D0224478_CANADA | skin | Guinea pig | Not sensitizing |

Conclusion/Summary

Skin : Non-sensitizer to skin. * Information is based on toxicity test result of the concentrate of a similar product.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| ethanol | - | 1 | - |

Reproductive toxicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : May cause eye irritation upon direct contact with eyes.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

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11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

12. Ecological information

Toxicity

D0224478 v12.0

12. Ecological information

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------------------------------------|--|----------|
| ethanol | Acute EC50 17.921 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Acute EC50 2000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 25500 µg/l Marine water | Crustaceans - Artemia franciscana - Larvae | 48 hours |
| | Acute LC50 42000 µg/l Fresh water | Fish - Oncorhynchus mykiss | 4 days |
| | Chronic NOEC 4.995 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 100 ul/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |

Conclusion/Summary : Based on available data, the classification criteria are not met.

Persistence and degradability

Conclusion/Summary : Based on available data, the classification criteria are not met.

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| ethanol | -0.35 | - | low |
| butane | 2.89 | - | low |
| propane | 1.09 | - | low |

Mobility in soil



Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

14. Transport information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|---------------------------|-----------|----------------------|---------|-----|---|------------------------|
| DOT Classification | UN1950 | Aerosols, flammable | 2.1 | - |  | Limited quantity |
| TDG Classification | UN1950 | Aerosols, flammable | 2.1 | - |  | Limited quantity |

Code # : D0224478 (NA)




SDS # : D0224478 v12.0

Date of issue : 25/09/2018

11/15

D0224478 v12.0

14. Transport information

| | | | | | | |
|------------------------------|--------|---------------------|-----|---|---|------------------|
| Mexico Classification | UN1950 | Aerosols, flammable | 2.1 | - |  | Limited quantity |
| IMDG Class | UN1950 | Aerosols, flammable | 2.1 | - |  | Limited quantity |
| IATA-DGR Class | UN1950 | Aerosols, flammable | 2.1 | - |  | See DG List |

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

PG* : Packing group

15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:** 2-methylpropan-2-ol
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): Not determined.
Clean Water Act (CWA) 311: ammonia
Clean Air Act (CAA) 112 regulated flammable substances: butane; propane

Clean Air Act Section 112 : Not listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Sudden release of pressure

Composition/information on ingredients

D0224478 v12.0

15. Regulatory information

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---------|---------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| ethanol | > 60 | Yes. | No. | No. | Yes. | No. |
| butane | 5 - 10 | Yes. | Yes. | No. | No. | No. |
| propane | 1 - 2.5 | Yes. | Yes. | No. | No. | No. |

State regulations

- Massachusetts** : The following components are listed: ETHYL ALCOHOL; DENATURED ALCOHOL; BUTANE; PROPANE
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: ETHYL ALCOHOL; ALCOHOL; BUTANE; PROPANE
- Pennsylvania** : The following components are listed: DENATURED ALCOHOL; ETHANOL; BUTANE; PROPANE

Canada

- WHMIS (Canada)** : Class B-2: Flammable liquid
Class B-5: Flammable aerosol.

Canadian lists

- Canadian NPRI** : The following components are listed: Ethanol; Butane (all isomers); Propane
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : All components are listed or exempted.

Label elements

- Signal word** : DANGER
- Hazard statements** : EXTREMELY FLAMMABLE.
CONTAINER MAY EXPLODE IF HEATED
- Precautionary measures** : Keep out of reach of children. CONTENTS UNDER PRESSURE. DO NOT use in presence of open flame or spark. Do not puncture or incinerate container. Do not store above the following temperature: 50C

16. Other information

Hazardous Material Information System (U.S.A.) :

| | | |
|---------------------|---|---|
| Health | * | 1 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| Personal protection | | B |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

D0224478 v12.0

16. Other information

National Fire Protection Association (U.S.A.) :



NFPA (30B) aerosol Flammability Level 1

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

Date of issue : 25/09/2018
Date of previous issue : 11/07/2018
Version : 12
Prepared by : Reckitt Benckiser India Ltd
 Plot No 48
 Sector - 32
 Institutional Area
 Gurgaon, Haryana
 India - 122001

Revision comments : Update of SDS.

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

D0224478 v12.0

16. Other information



RB is a member of the CSPA Product Care Product Stewardship Program.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

MACROPOXY® 646 Fast Cure Epoxy (Part B) - Hardener

B58V600

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : MACROPOXY® 646 Fast Cure Epoxy (Part B) - Hardener

Product code : B58V600

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses : Paint or paint related material.

: Industrial use only.

1.3 Details of the supplier of the safety data sheet

Mfg. in U.S.A and exported by:
The Sherwin-Williams Company
101 Prospect Avenue N.W.
Cleveland, OH 44115

Imported by: Valspar B.V.
Zuiveringweg 89
8243 PE Lelystad
P.O. Box 2139
The Netherlands
Phone: +31 (0)320 29 22 00

e-mail address of person responsible for this SDS : sds@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : +431 406 43 43

Supplier

Telephone number : +1 703-741-5970

Hours of operation : Emergency contact available 24 hours a day

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Skin Sens. 1, H317

STOT RE 1, H372

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Date of issue/Date of revision : 21, May, 2020

Date of previous issue : 27, Mar, 2020

Version : 6.03

1/16

SECTION 2: Hazards identification

Hazard pictograms : 

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes damage to organs through prolonged or repeated exposure.
 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear protective clothing. Wear eye or face protection.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
 No smoking. Avoid release to the environment. Do not breathe vapor.

Response : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Crystalline Silica, respirable powder
 Epoxy Polymer

Supplemental label elements : FOR INDUSTRIAL USE ONLY

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Not applicable.

2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixture :

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Type |
|--|---|-----------|--|---------|
| Crystalline Silica, respirable powder Epoxy Polymer | EC: 238-878-4 CAS: 14808-60-7 | ≥50 - ≤75 | STOT RE 1, H372 (inhalation) | [1] [2] |
| | REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2 | ≥10 - <25 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] [2] |
| Methyl Isobutyl Ketone | REACH #: 01-2119473980-30 EC: 203-550-1 | ≤10 | Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 | [1] [2] |

SECTION 3: Composition/information on ingredients

| | | | | |
|-----------------------|--|----|--|---------|
| Xylene, mixed isomers | CAS: 108-10-1 Index: 606-004-00-4 REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 | ≤3 | STOT SE 3, H335 EUH066 Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 See Section 16 for the full text of the H statements declared above. | [1] [2] |
|-----------------------|--|----|--|---------|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

MACROPOXY® 646 Fast Cure Epoxy (Part B) - Hardener

B58V600

SECTION 4: First aid measures

Contains bis-[4-(2,3-epoxipropoxy)phenyl]propane. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, carbon dioxide, powders.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up

: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- : Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapors in all cases. In such circumstances, they should wear a compressed-air-fed respirator during the spraying process and until the particulate and solvent vapor concentrations have fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidizing agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Contaminated absorbent material may pose the same hazard as the spilled product.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|---------------------------------------|---|
| Crystalline Silica, respirable powder | Regulation on Limit Values - MAC (Austria, 9/2018). AMV: 0.15 mg/m ³ 1 hours. Form: respirable dust |
| Epoxy Polymer | Regulation on Limit Values - MAC (Austria, 9/2018). TWA: 10 ppm 8 hours. TWA: 70 mg/m ³ 8 hours. PEAK: 20 ppm, 4 times per shift, 15 minutes. PEAK: 140 mg/m ³ , 4 times per shift, 15 minutes. |
| Methyl Isobutyl Ketone | Regulation on Limit Values - MAC (Austria, 9/2018). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. PEAK: 50 ppm, 4 times per shift, 15 minutes. PEAK: 208 mg/m ³ , 4 times per shift, 15 minutes. |
| Xylene, mixed isomers | Regulation on Limit Values - MAC (Austria, 9/2018). PEAK: 442 mg/m ³ , 4 times per shift, 15 minutes. TWA: 50 ppm 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. TWA: 221 mg/m ³ 8 hours. |

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

: Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|-------------------------|------|-----------------------|-------------------------|--------------------------------|----------|
| Methyl Isobutyl Ketone | DNEL | Short term Inhalation | 208 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 208 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 83 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 83 mg/m ³ | Workers | Local |
| | DNEL | Long term Dermal | 11.8 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 155.2 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Short term Inhalation | 155.2 mg/m ³ | General population | Local |

SECTION 8: Exposure controls/personal protection

| | | | | | |
|-----------------------|------|-----------------------|------------------------|--|----------|
| Xylene, mixed isomers | DNEL | Long term Inhalation | 14.7 mg/m ³ | [Consumers] General population | Systemic |
| | DNEL | Long term Inhalation | 14.7 mg/m ³ | [Consumers] General population | Local |
| | DNEL | Long term Dermal | 4.2 mg/kg bw/day | [Consumers] General population | Systemic |
| | DNEL | Long term Oral | 4.2 mg/kg bw/day | [Consumers] General population | Systemic |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | [Consumers] Workers | Systemic |
| | DNEL | Long term Dermal | 108 mg/kg bw/day | [Consumers] General population [Human via the environment] | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m ³ | [Consumers] Workers | Systemic |
| | DNEL | Short term Inhalation | 289 mg/m ³ | [Consumers] Workers | Systemic |
| | DNEL | Short term Inhalation | 289 mg/m ³ | [Consumers] Workers | Local |
| | DNEL | Long term Inhalation | 14.8 mg/m ³ | [Consumers] General population [Human via the environment] | Systemic |
| | DNEL | Short term Inhalation | 174 mg/m ³ | [Consumers] General population | Systemic |
| | DNEL | Short term Inhalation | 174 mg/m ³ | [Consumers] General population | Local |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|----------------|---------------|
| Methyl Isobutyl Ketone | Fresh water | 0.6 mg/l | - |
| | Marine water | 0.06 mg/l | - |
| | Sewage Treatment Plant | 27.5 mg/l | - |
| | Fresh water sediment | 8.27 mg/kg dwt | - |
| | Marine water sediment | 0.83 mg/kg dwt | - |
| | Soil | 1.3 mg/kg dwt | - |
| Xylene, mixed isomers | Fresh water | 0.327 mg/l | - |
| | Marine water | 0.327 mg/l | - |
| | Fresh water sediment | 12.46 mg/l | - |
| | Sewage Treatment Plant | 6.58 mg/l | - |
| | Soil | 2.31 mg/kg | - |
| | Marine water sediment | 12.46 mg/l | - |

8.2 Exposure controls

Appropriate engineering controls

- : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.
- : Users are advised to consider national Occupational Exposure Limits or other equivalent values.

SECTION 8: Exposure controls/personal protection

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.
- Skin protection**
- Hand protection**
- Gloves** : Wear suitable gloves tested to EN374.
- : Gloves for short term exposure/splash protection (less than 10 min.): Nitrile>0.12 mm
Gloves for splash protection need to be changed immediately when in contact with chemicals.
Gloves for repeated or prolonged exposure (breakthrough time > 240 min.)
When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm
Otherwise use: Butyl gloves >0.3 mm
For long term exposure or spills (breakthrough time >480 min.): Use PE laminated gloves as under gloves
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.
The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG)
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

Respiratory protection : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | |
|---|---|
| Physical state | : Liquid. |
| Color | : Not available. |
| Odor | : Solvent. |
| Odor threshold | : Not Available (Not Tested). |
| pH | : Not relevant/applicable due to nature of the product. |
| Melting point/freezing point | : Not relevant/applicable due to nature of the product. |
| Initial boiling point and boiling range | : 113°C |
| Flash point | : Closed cup: 23°C [Pensky-Martens Closed Cup] |
| Evaporation rate | : 1.62 (butyl acetate = 1) |
| Flammability (solid, gas) | : Not relevant/applicable due to nature of the product. |
| Upper/lower flammability or explosive limits | : LEL: 1% (Xylene, mixed isomers) UEL: 7.5% (Methyl Isobutyl Ketone) |
| Vapor pressure | : 2.1 kPa [at 20°C] |
| Vapor density | : 3.45 [Air = 1] |
| Relative density | : 1.61 |
| Solubility(ies) | : Not relevant/applicable due to nature of the product. |
| Partition coefficient: n-octanol/water | : Not relevant/applicable due to nature of the product. |
| Auto-ignition temperature | : Not relevant/applicable due to nature of the product. |
| Decomposition temperature | : Not relevant/applicable due to nature of the product. |
| Viscosity | : Kinematic (40°C): >0.205 cm ² /s |
| Explosive properties | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Oxidizing properties | : Under normal conditions of storage and use, hazardous reactions will not occur. |

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

MACROPOXY® 646 Fast Cure Epoxy (Part B) - Hardener

B58V600

SECTION 10: Stability and reactivity

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains bis-[4-(2,3-epoxipropoxy)phenyl]propane. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|----------------------|---------|------------|----------|
| Epoxy Polymer | LD50 Dermal | Rabbit | 20 g/kg | - |
| Methyl Isobutyl Ketone | LD50 Oral | Rat | 2080 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Dermal | 61055.31 mg/kg |
| Inhalation (gases) | 277524.15 ppm |
| Inhalation (vapors) | 114.56 mg/l |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| Epoxy Polymer | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| Methyl Isobutyl Ketone | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 UI | - |
| Xylene, mixed isomers | Eyes - Severe irritant | Rabbit | - | 40 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |

SECTION 11: Toxicological information

| | | | | | |
|--|--------------------------|--------|---|-------------|---|
| | Skin - Moderate irritant | Rabbit | - | mg 100 % | - |
|--|--------------------------|--------|---|-------------|---|

Conclusion/Summary : Not available.

Sensitization

No data available

Conclusion/Summary : Not available.

Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------------------|
| Methyl Isobutyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|----------------|
| Crystalline Silica, respirable powder | Category 1 | Inhalation | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|---|--|--------------------------------|
| Methyl Isobutyl Ketone | Acute LC50 505000 µg/l Fresh water Chronic NOEC 78 mg/l Fresh water Chronic NOEC 168 mg/l Fresh water | Fish - Pimephales promelas Daphnia - Daphnia magna Fish - Pimephales promelas - Embryo | 96 hours 21 days 33 days |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water Acute LC50 13400 µg/l Fresh water | Crustaceans - Palaemonetes pugio Fish - Pimephales promelas | 48 hours 96 hours |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

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SECTION 12: Ecological information

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|------|--------|------|----------|
| No data available | | | | |

Conclusion/Summary : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methyl Isobutyl Ketone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC) : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II




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SECTION 13: Disposal considerations

- European waste catalogue (EWC)** : packaging containing residues of or contaminated by hazardous substances 15 01 10*
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | IMDG | IATA |
|---|--|--|--|
| 14.1 UN number | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | PAINT | PAINT | PAINT |
| 14.3 Transport Hazard Class(es)/ Label(s) | 3  | 3  | 3  |
| 14.4 Packing group | III | III | III |
| 14.5 Environmental hazards | No. | No. | No. |
| Additional information | <u>Tunnel code</u> D/E | <u>Emergency schedules</u> F-E, S-E | - |

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not applicable.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

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SECTION 15: Regulatory information

Annex XVII - Restrictions : Not applicable.
*on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles*

Other EU regulations

VOC content (2010/75/EU) : 12.1 w/w
196 g/l

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

15.2 Chemical Safety Assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative
N/A = Not available

Key literature references and sources for data : Regulation (EC) No. 1272/2008 [CLP]
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830
Directive 2012/18/EU, and relative amendments & additions
Directive 2008/98/EC, and relative amendments & additions
Directive 2009/161/EU, and relative amendments & additions
CEPE Guidelines

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|-------------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| STOT RE 1, H372 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

SECTION 16: Other information

| | | |
|---|---|---|
| Full text of abbreviated H statements | : H225 H226 H304 H312 H315 H317 H319 H332 H335 H372 (inhalation) H372 H373 H411 H412 | Highly flammable liquid and vapor. Flammable liquid and vapor. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure if inhaled. Causes damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. |
| Full text of classifications [CLP/GHS] | : Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4 Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2 Aquatic Chronic 3, H412 AQUATIC HAZARD (LONG-TERM) - Category 3 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1 EUH066 Repeated exposure may cause skin dryness or cracking. Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2 Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1 STOT RE 1, H372 (inhalation) SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1 STOT RE 1, H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | |
| Date of printing | : 21, May, 2020. | |
| Date of issue/ Date of revision | : 21, May, 2020 | |
| Date of previous issue | : 27, Mar, 2020 : If there is no previous validation date please contact your supplier for more information. | |
| Version | : 6.03 | |

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

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SECTION 16: Other information

shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

B58W610

Section 1. Identification

Product name : MACROPOXY® 646 Fast Cure Epoxy (Part A)
Mill White

Product code : B58W610

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs, skin) - Category 1
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 31.9%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 31.9%

GHS label elements

| | | | |
|--|---|-------------------------|------|
| Date of issue/Date of revision : 2/8/2020 | Date of previous issue : 11/28/2019 | Version : 18 | 1/16 |
| B58W610 | MACROPOXY® 646 Fast Cure Epoxy (Part A) Mill White | SHW-85-NA-GHS-US | |

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

- : Flammable liquid and vapor.
- Causes serious eye damage.
- Causes skin irritation.
- May cause an allergic skin reaction.
- Suspected of causing cancer.
- May be fatal if swallowed and enters airways.
- May cause respiratory irritation.
- May cause drowsiness or dizziness.
- Causes damage to organs through prolonged or repeated exposure. (lungs, skin)

Precautionary statements

Prevention

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

- : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage

- : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

- : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified

- : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|---|-------------|------------|
| Titanium Dioxide | ≥25 - ≤50 | 13463-67-7 |
| Phenol, isobutylenated methylstyrenated | ≥10 - ≤25 | 68457-74-9 |
| Xylene, mixed isomers | ≥10 - ≤17 | 1330-20-7 |
| Polyamide | ≥10 - ≤25 | 68410-23-1 |
| Talc | ≤10 | 14807-96-6 |
| Ethylbenzene | ≤3 | 100-41-4 |
| Triethylene Tetramine | <1 | 112-24-3 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Section 4. First aid measures

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - pain
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 - pain or irritation
 - redness
 - blistering may occur
- Ingestion** : Adverse symptoms may include the following:
 - stomach pains
 - nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 - carbon dioxide
 - carbon monoxide
 - metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or

Section 7. Handling and storage

any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|--|--------------------------|---|
| Titanium Dioxide | 13463-67-7 | ACGIH TLV (United States, 3/2019). TWA: 10 mg/m ³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust |
| Phenol, isobutyleneated methylstyrenated Xylene, mixed isomers | 68457-74-9 1330-20-7 | None. ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Polyamide Talc | 68410-23-1 14807-96-6 | None. NIOSH REL (United States, 10/2016). TWA: 2 mg/m ³ 10 hours. Form: Respirable fraction ACGIH TLV (United States, 3/2019). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction |
| Ethylbenzene | 100-41-4 | ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Triethylene Tetramine | 112-24-3 | AIHA WEEL (United States, 7/2018). Absorbed through skin. |

Section 8. Exposure controls/personal protection

TWA: 1 ppm 8 hours.

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-------------------------|------------|--|
| Titanium dioxide | 13463-67-7 | <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m³ 8 hours. Form: Total dust.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 10 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> |
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| talc (none asbestiform) | 14807-96-6 | <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 2 mg/m³ 8 hours. Form: Respirable TWA: 0.1 f/cc 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 3 mg/m³ 8 hours. Form: Respirable dust.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 2 mg/m³ 8 hours. Form: Respirable fraction. TWA: 2 f/cc 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 2 mg/m³ 8 hours. Form: Respirable particulate</p> <p>CA Saskatchewan Provincial (Canada, 7/2013).</p> |

Section 8. Exposure controls/personal protection

| | | |
|----------------------|----------|--|
| Ethylbenzene | 100-41-4 | <p>TWA: 2 mg/m³ 8 hours. Form: respirable fraction</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Triethylenetetramine | 112-24-3 | <p>CA Ontario Provincial (Canada, 1/2018). Absorbed through skin. TWA: 3 mg/m³ 8 hours. TWA: 0.5 ppm 8 hours.</p> |

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|-----------------------|-----------|---|
| Xylene, mixed isomers | 1330-20-7 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours.</p> |

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**

 - Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
 - Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
 - Color** : Not available.
 - Odor** : Not available.
 - Odor threshold** : Not available.
 - pH** : Not available.
 - Melting point/freezing point** : Not available.
 - Boiling point/boiling range** : 136°C (276.8°F)
 - Flash point** : Closed cup: 26°C (78.8°F) [Pensky-Martens Closed Cup]
 - Evaporation rate** : 0.8 (butyl acetate = 1)
 - Flammability (solid, gas)** : Not available.
 - Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 7%
 - Vapor pressure** : 0.95 kPa (7.1 mm Hg) [at 20°C]
 - Vapor density** : 3.66 [Air = 1]
 - Relative density** : 1.46
 - Solubility** : Not available.
 - Partition coefficient: n-octanol/water** : Not available.
 - Auto-ignition temperature** : Not available.
 - Decomposition temperature** : Not available.
 - Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
 - Molecular weight** : Not applicable.
- Aerosol product**
- Heat of combustion** : 5.605 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
- Incompatible materials** : Reactive or incompatible with the following materials:
oxidizing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-----------------------------------|---------------|---------------------------|--------------|
| Phenol, isobutylenated methylstyrenated | LD50 Dermal | Rabbit | >20000 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. LD50 Oral | Rat Rat | 5000 ppm 4300 mg/kg | 4 hours - |
| Ethylbenzene | LD50 Dermal LD50 Oral | Rabbit Rat | >5000 mg/kg 3500 mg/kg | - - |
| Triethylene Tetramine | LD50 Dermal LD50 Oral | Rabbit Rat | 805 mg/kg 2500 mg/kg | - - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|-------------------|-------------|
| Titanium Dioxide | Skin - Mild irritant | Human | - | 72 hours 300 ug l | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Talc | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Skin - Mild irritant | Human | - | 72 hours 300 ug l | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| Triethylene Tetramine | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 49 mg | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Severe irritant | Rabbit | - | 490 mg | - |

Section 11. Toxicological information

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Titanium Dioxide | - | 2B | - |
| Xylene, mixed isomers | - | 3 | - |
| Talc | - | 3 | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|--------------------------|------------------------------------|--|
| Phenol, isobutyleneated methylstyrenated | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|----------------|
| Phenol, isobutyleneated methylstyrenated | Category 2 | Not determined | skin |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Talc | Category 1 | Inhalation | lungs |
| Ethylbenzene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|--|--------------------------------|
| Phenol, isobutyleneated methylstyrenated | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Section 11. Toxicological information

- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 - pain
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 - pain or irritation
 - redness
 - blistering may occur
- Ingestion** : Adverse symptoms may include the following:
 - stomach pains
 - nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

| Route | ATE value |
|---------------------|----------------|
| Oral | 16236.52 mg/kg |
| Dermal | 6703.84 mg/kg |
| Inhalation (gases) | 23052.08 ppm |
| Inhalation (vapors) | 281.93 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|---------------------------------------|---|----------|
| Titanium Dioxide | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| Triethylene Tetramine | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 3700 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute LC50 33900 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|---|--|---|---|---|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3  | 3  | 3  | 3  | 3  |
| Packing group | III | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. 128 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). ERG No. 128 | - ERG No. 128 | - | Emergency schedules F-E, S-E |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 14. Transport information

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists

- Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (ENCS):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs, skin) - Category 1 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

Section 16. Other information

History

Date of printing : 2/8/2020

Date of issue/Date of revision : 2/8/2020

Date of previous issue : 11/28/2019

Version : 18

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

B58V600

Section 1. Identification

Product name : MACROPOXY® 646 Fast Cure Epoxy (Part B)
Hardener

Product code : B58V600

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 57.9% (oral), 67.5% (dermal), 57.9% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 May cause cancer.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|---------------------------------------|-------------|------------|
| Crystalline Silica, respirable powder | ≥50 - ≤75 | 14808-60-7 |
| Epoxy Polymer | ≥10 - ≤25 | 1675-54-3 |
| Methyl Isobutyl Ketone | ≤10 | 108-10-1 |
| Xylene, mixed isomers | ≤3 | 1330-20-7 |
| Ethylbenzene | <1 | 100-41-4 |

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

| Ingredient name | CAS # | Exposure limits |
|---|-----------------------|---|
| Crystalline Silica, respirable powder | 14808-60-7 | OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO ₂ +5) 8 hours. Form: Respirable TWA: 10 mg/m ³ / (%SiO ₂ +2) 8 hours. Form: Respirable OSHA PEL (United States, 5/2018). TWA: 50 µg/m ³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2020). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m ³ 10 hours. Form: respirable dust |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane Methyl Isobutyl Ketone | 1675-54-3 108-10-1 | None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 50 ppm 10 hours. TWA: 205 mg/m ³ 10 hours. STEL: 75 ppm 15 minutes. STEL: 300 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 410 mg/m ³ 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Ethylbenzene | 100-41-4 | ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|------------|--|
| Quartz | 14808-60-7 | CA British Columbia Provincial (Canada, 1/2020). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 7/2019). TWAEV: 0.1 mg/m ³ 8 hours. Form: Respirable dust. CA Ontario Provincial (Canada, 6/2019). |

Section 8. Exposure controls/personal protection

| | | |
|------------------------|-----------|--|
| Methyl isobutyl ketone | 108-10-1 | <p>TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form: respirable fraction</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 205 mg/m³ 8 hours. 8 hrs OEL: 50 ppm 8 hours. 15 min OEL: 75 ppm 15 minutes. 15 min OEL: 307 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 50 ppm 8 hours. TWAEV: 205 mg/m³ 8 hours. STEV: 75 ppm 15 minutes. STEV: 307 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 75 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--|--|--|
| | | <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
|--|--|--|

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|---------------------------------------|--------------|---|
| Crystalline Silica, respirable powder | 14808-60-7 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction |
| Methyl Isobutyl Ketone | 108-10-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 50 ppm 8 hours. STEL: 75 ppm 15 minutes. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
 - Color** : Not available.
 - Odor** : Not available.
 - Odor threshold** : Not available.
 - pH** : Not applicable.
 - Melting point/freezing point** : Not available.
 - Boiling point/boiling range** : 113°C (235.4°F)
 - Flash point** : Closed cup: 23°C (73.4°F) [Pensky-Martens Closed Cup]
 - Evaporation rate** : 1.62 (butyl acetate = 1)
 - Flammability (solid, gas)** : Not available.
 - Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 7.5%
 - Vapor pressure** : 2.1 kPa (16 mm Hg) [at 20°C]
 - Vapor density** : 3.45 [Air = 1]
 - Relative density** : 1.61
 - Solubility** : Not available.
 - Partition coefficient: n-octanol/water** : Not available.
 - Auto-ignition temperature** : Not available.
 - Decomposition temperature** : Not available.
 - Viscosity** : Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 cSt)
 - Molecular weight** : Not applicable.
- ### Aerosol product
- Heat of combustion** : 4.125 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
- Incompatible materials** : Reactive or incompatible with the following materials:
oxidizing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|----------------------|---------|-------------|----------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | LD50 Dermal | Rabbit | 20 g/kg | - |
| Methyl Isobutyl Ketone | LD50 Oral | Rat | 2080 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|-----------------|-------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| Methyl Isobutyl Ketone | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 UI | - |
| | Eyes - Severe irritant | Rabbit | - | 40 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Ethylbenzene | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Sensitization

Not available.

Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|---|------|------|---------------------------------|
| Crystalline Silica, respirable powder | - | 1 | Known to be a human carcinogen. |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | - | 3 | - |
| Methyl Isobutyl Ketone | - | 2B | - |
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------|--------------------------|-------------------|--|
| Methyl Isobutyl Ketone | Category 3 | - | Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | - | Respiratory tract irritation Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|---------------|
| Crystalline Silica, respirable powder | Category 1 | inhalation | - |
| Methyl Isobutyl Ketone | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |

Aspiration hazard

| Name | Result |
|---------------------------------------|--|
| Xylene, mixed isomers Ethylbenzene | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Oral | 8357.8 mg/kg |
| Dermal | 19831.34 mg/kg |
| Inhalation (gases) | 156497.4 ppm |
| Inhalation (vapors) | 48.21 mg/l |

Section 12. Ecological information

Toxicity

Section 12. Ecological information

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|---|--|--------------------------------|
| Methyl Isobutyl Ketone | Acute LC50 505000 µg/l Fresh water Chronic NOEC 78 mg/l Fresh water Chronic NOEC 168 mg/l Fresh water | Fish - Pimephales promelas Daphnia - Daphnia magna Fish - Pimephales promelas - Embryo | 96 hours 21 days 33 days |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Ethylbenzene | Acute LC50 13400 µg/l Fresh water Acute EC50 4600 µg/l Fresh water | Fish - Pimephales promelas Algae - Pseudokirchneriella subcapitata | 96 hours 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methyl Isobutyl Ketone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3  | 3  | 3  | 3  | 3  |
| Packing group | III | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. 128 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). ERG No. 128 | - ERG No. 128 | - | Emergency schedules F-E, S-E |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Section 15. Regulatory information

International lists :

- Australia inventory (AIC)**: Not determined.
- China inventory (IECSC)**: Not determined.
- Japan inventory (CSCL)**: Not determined.
- Japan inventory (ISHL)**: Not determined.
- Korea inventory (KECI)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: Not determined.
- Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
- Thailand inventory**: Not determined.
- Turkey inventory**: Not determined.
- Vietnam inventory**: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|---|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| CARCINOGENICITY - Category 1A | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |

History

Date of printing : 1/18/2021

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Date of previous issue : 10/15/2020

Version : 17

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

Section 16. Other information

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

B58V600

Section 1. Identification

Product name : MACROPOXY® 646 Fast Cure Epoxy (Part B)
Hardener
Product code : B58V600
Other means of identification : Not available.
Product type : Liquid.
Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 57.9%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 67.5%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 57.9%

GHS label elements

Hazard pictograms :



Date of issue/Date of revision : 2/10/2020 **Date of previous issue** : 11/28/2019

B58V600 MACROPOXY® 646 Fast Cure Epoxy (Part B)
Hardener

Version : 15
SHW-85-NA-GHS-US

1/16

550

Section 2. Hazards identification

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause cancer.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|---------------------------------------|-------------|------------|
| Crystalline Silica, respirable powder | ≥50 - ≤75 | 14808-60-7 |
| Epoxy Polymer | ≥10 - ≤25 | 1675-54-3 |
| Methyl Isobutyl Ketone | ≤10 | 108-10-1 |
| Xylene, mixed isomers | ≤3 | 1330-20-7 |
| Ethylbenzene | <1 | 100-41-4 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|---|-----------------------|---|
| Crystalline Silica, respirable powder | 14808-60-7 | <p>OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO₂+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO₂+2) 8 hours. Form: Respirable</p> <p>OSHA PEL (United States, 5/2018). TWA: 50 µg/m³ 8 hours. Form: Respirable dust</p> <p>ACGIH TLV (United States, 3/2019). TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction</p> <p>NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m³ 10 hours. Form: respirable dust</p> |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane Methyl Isobutyl Ketone | 1675-54-3 108-10-1 | <p>None.</p> <p>ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>NIOSH REL (United States, 10/2016). TWA: 50 ppm 10 hours. TWA: 205 mg/m³ 10 hours. STEL: 75 ppm 15 minutes. STEL: 300 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.</p> |
| Xylene, mixed isomers | 1330-20-7 | <p>ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

| Ingredient name | CAS # | Exposure limits |
|------------------------|------------|--|
| Quartz | 14808-60-7 | <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 0.025 mg/m³ 8 hours. Form: Respirable</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable dust.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form: respirable fraction</p> |
| Methyl isobutyl ketone | 108-10-1 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 205 mg/m³ 8 hours. 8 hrs OEL: 50 ppm 8 hours. 15 min OEL: 75 ppm 15 minutes. 15 min OEL: 307 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 205 mg/m³ 8 hours. STEV: 75 ppm 15 minutes. STEV: 307 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 75 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--------------|----------|---|
| Ethylbenzene | 100-41-4 | <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
|--------------|----------|---|

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|---------------------------------------|--------------|---|
| Crystalline Silica, respirable powder | 14808-60-7 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction |
| Methyl Isobutyl Ketone | 108-10-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 50 ppm 8 hours. STEL: 75 ppm 15 minutes. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : 113°C (235.4°F)
- Flash point** : Closed cup: 23°C (73.4°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 1.62 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 7.5%
- Vapor pressure** : 2.1 kPa (16 mm Hg) [at 20°C]
- Vapor density** : 3.45 [Air = 1]
- Relative density** : 1.61
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 cSt)
- Molecular weight** : Not applicable.

Aerosol product

Section 9. Physical and chemical properties

Heat of combustion : 4.131 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|----------------------|---------|-------------|----------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | LD50 Dermal | Rabbit | 20 g/kg | - |
| Methyl Isobutyl Ketone | LD50 Oral | Rat | 2080 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|-----------------|-------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| Methyl Isobutyl Ketone | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 UI | - |
| | Eyes - Severe irritant | Rabbit | - | 40 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Ethylbenzene | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Section 11. Toxicological information

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|---|------|------|---------------------------------|
| Crystalline Silica, respirable powder | - | 1 | Known to be a human carcinogen. |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | - | 3 | - |
| Methyl Isobutyl Ketone | - | 2B | - |
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------|--------------------------|------------------------------------|--|
| Methyl Isobutyl Ketone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|----------------|
| Crystalline Silica, respirable powder | Category 1 | Inhalation | Not determined |
| Methyl Isobutyl Ketone | Category 2 | Not determined | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|---------------------------------------|--|
| Xylene, mixed isomers Ethylbenzene | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Section 11. Toxicological information

- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Oral | 8355.02 mg/kg |
| Dermal | 19752.32 mg/kg |
| Inhalation (gases) | 116323.72 ppm |
| Inhalation (vapors) | 48.21 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|------------------------------------|---|----------|
| Methyl Isobutyl Ketone | Acute LC50 505000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic NOEC 78 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Chronic NOEC 168 mg/l Fresh water | Fish - Pimephales promelas - Embryo | 33 days |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Ethylbenzene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methyl Isobutyl Ketone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3  | 3  | 3  | 3  | 3  |
| Packing group | III | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. 128 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). ERG No. 128 | - ERG No. 128 | - | Emergency schedules F-E, S-E |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Section 15. Regulatory information

International lists :

- Australia inventory (AICS)**: Not determined.
- China inventory (IECSC)**: Not determined.
- Japan inventory (ENCS)**: Not determined.
- Japan inventory (ISHL)**: Not determined.
- Korea inventory (KECI)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: Not determined.
- Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
- Thailand inventory**: Not determined.
- Turkey inventory**: Not determined.
- Vietnam inventory**: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|---|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| CARCINOGENICITY - Category 1A | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |

History

Date of printing : 2/10/2020

Date of issue/Date of revision : 2/10/2020

Date of previous issue : 11/28/2019

Version : 15

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

Section 16. Other information

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.



SAFETY DATA SHEET

DATE: 1.2.21 Rev 10

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Marking Chalk Red

USE OF PRODUCT: Chalk Box Marking Chalk

MANUFACTURER: Keson LLC

ADDRESS: 810 Commerce St., Aurora, Il. 60504

EMERGENCY PHONE: 1-800-345-3766 (8am to 5pm Central Time, Monday – Friday)

SECTION 2: HAZARDS IDENTIFICATION

OSHA GHS Hazard Statements (Warning Label)

DANGER: May cause cancer (lung)

EMERGENCY OVERVIEW:

Product Description: These products are colored, finely powdered, odorless chalks. Health Hazards: Inhalation of dusts from this product may irritate the respiratory system. Skin and eye contact may cause mechanical abrasion. These chalks contain Crystalline Silica, a known human carcinogen by inhalation.

Flammability Hazards: These chalks are not flammable. Finely divided dusts from these products can form explosive mixtures in air. If involved in a fire, these products may decompose to form iron oxides, aluminum oxides, silicon dioxide, sulfur dioxide, magnesium oxides, carbon oxides and calcium oxides.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation. Chalk dust is discomforting and abrasive to the eyes.

SKIN: Prolonged contact may cause irritation. When the product is used as intended, it is unlikely to cause problems.

INGESTION: Ingestion of large amount may cause internal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.

INHALATION: May irritate the respiratory system. When the product is used as intended, it is unlikely to cause problems.

Chronic: Repeated or prolonged inhalation exposure to crystalline silica dust beyond exposure limits may cause chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.



DANGER

Hazard Ratings:

Hazardous Material Identification System (HMIS): Health 1*, Flammability 0, Reactivity 0
*chronic effects

National Fire Protection Association (NFPA): Health 1, Flammability 0, Reactivity 0

Obtain special instructions before use. May cause cancer by inhalation. Avoid breathing dust or fume. Causes serious eye irritation. Causes mild skin irritation. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection.



SAFETY DATA SHEET

DATE: 1.2.21 Rev 10

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Substance name | Value (%) | CAS No. | EC No. |
|---------------------------------|-----------|------------|-----------|
| Calcium carbonate (1) | 85-90 | 471-34-1 | 207-439-9 |
| Red Iron Oxide | 10 - 15 | 1317-61-9 | 215-168-2 |
| Silica (crystalline quartz) (1) | 0.1 - 1 | 14808-60-7 | 238-878-4 |

1 Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

SECTION 4: FIRST AID MEASURES

EYES: If product enters the eye do not rub, rubbing may cause abrasions. Flush eyes with copious amounts of water for 15 minutes, occasionally lifting upper and lower eyelids. If adverse effects persist after flushing with water, get medical aid.

SKIN: Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Wash contaminated clothing before wearing again. Wash infected areas with water and soap. Get medical attention in the event of irritation.

INGESTION: If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, seek immediate medical attention. If alert, victim should drink up to three glasses of water. Do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain emergency medical attention.

INHALATION: If dust or particulates are inhaled, Remove from exposure and move to fresh air immediately. Encourage to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Show this data safety sheet to medical professionals.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Substance is noncombustible, however; the containers may burn, releasing carbon monoxide and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus in pressure demand and full protective gear.

FIRE EXTINGUISHING MEDIA: Unless incompatibilities exist for surrounding materials, carbon dioxide, water spray, "ABC" type chemical extinguishers, foam, dry chemical and halon extinguishers can be used to fight fires involving this material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Finely divided dusts from this material pose a hazard of an air/dust explosion in presence of an ignition source

HAZARDOUS DECOMPOSITION PRODUCTS: If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.



SAFETY DATA SHEET

DATE: 1.2.21 Rev 10

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Wear appropriate personal protective equipment. Do not allow this material to be released into the environment. Recover the product whenever possible. Avoid generating dust when sweeping or shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal.

Cleanup of Small Spills: Solids should be gently covered with wet absorbent pads. Clean spill with pad and dispose of properly. Decontaminate the spill area (three times) using a bleach and detergent solution and then rinse with clean water.

Large Spills: Restrict access to the spill areas. For spills of greater than 5 g, be sure not to generate dusts by gently covering with damp absorbent sheets, spill-control pads, pillows, cloths, or towels. The dispersion of particles into surrounding air and the possibility of inhalation is a serious matter and should be treated as such. Do not apply chemical in-activators as they may produce hazardous by-products. Sweep up or vacuum spilled solid (an explosion-proof vacuum should be used), avoiding the generation of airborne dusts. Decontaminate the area thoroughly.

All Spills: Use procedures described above and then place all spill residues in an appropriate, labeled container and seal. Move to a secure area. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing airborne dusts generated by this product. Use in a well-ventilated area. Ensure this product is used with adequate ventilation and personal protective equipment (see Section 8, Exposure Controls and Personal Protection). Avoid airborne dusts generated by this product. Clean work areas routinely to prevent accumulation of dust. Clean up spills promptly.

CONDITIONS FOR SAFE STORAGE: Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Keep container tightly closed when not in use. Refer to NFPA 654, *Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids* for additional information on storage.

SPECIFIC END USE(S): These products are used in chalk line devices in construction. Follow all industry standards for use of this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly, before maintenance begins. Collect all residue and dispose of according to applicable or applicable federal, state, provincial and local standards.



SAFETY DATA SHEET

DATE: 1.2.21 Rev 10

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit 8-Hour TWA¹(mg/m³)

| Component | CAS No. | % by weight | OSHA PEL | ACGIH TLV | NIOSH REL |
|-----------------------------------|--------------------------|-------------|------------------|-----------|-------------|
| Calcium Carbonate (Limestone) (4) | 471-34-1; (1317-65-3) | 85-90 | 15(2), 5 (3) | 10(2) | 10(2), 5(3) |
| Red Iron Oxide | 1317-61-9 | 10-15 | 10 | 5(3) | 5 |
| Silica-Crystalline Quartz (4) | 14808-60-7 | 0.1-1.0 | 10(2,5),3.3(3,5) | 0.05(3) | 0.05(3) |

¹TWA = Time-weighted average

²Total dust.

³Respirable dust.

⁴Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

⁵Using the OSHA quartz formula, this PEL was calculated assuming crystalline silica content of 1.0% in this ingredient.

SPECIAL NOTE: The following information is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hand Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR 1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection). Please reference applicable regulations and standards for relevant details.

ENGINEERING CONTROLS: Facilities storing or utilizing this material should have potable water available for washing of eyes and skin. Use sufficient general area ventilation. To ensure exposure levels are maintained below the limits provided in this section if applicable.

VENTILATION: Local ventilation should be used.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below exposure limits listed above. For materials without listed exposure limits, minimize respiratory exposure. If necessary, use only respiratory protection authorized under appropriate regulations. Oxygen levels below 20% are considered IDLH by U.S. OSHA. In such atmospheres, use of a full-face piece pressure/demand SCBA or a full face piece, supplied air respirator with auxiliary self-contained air supply is required under U.S. OSHA's Respiratory Protection Standard (1910.134-1998).

EYE PROTECTION: Wear safety goggles/glasses as appropriate for the task if dust or other particulates are present. Face shields maybe recommended if solutions are made. If necessary, refer to appropriate regulations.

SKIN PROTECTION: Use appropriate protective clothing for the task. Full-body protective clothing and gloves are recommended for emergency response procedures. If necessary, refer to the U.S. OSHA Technical Manual (Section VII: Personal Protective Equipment) or other appropriate regulations.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: No information found.



WORK HYGIENIC PRACTICES: Wash contaminated clothing before reuse.

EXPOSURE GUIDELINES: No information found.



SAFETY DATA SHEET

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| PROTECTIVE EQUIPMENT | | | |
|---|---------------|---|---------------|
| EYES | RESPIRATORY | HANDS | BODY |
|  | SEE SECTION 8 |  | SEE SECTION 8 |

For Routine Industrial Use and Handling Applications

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe * = Chronic hazard

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Powder – Red Color

ODOR: Odorless

pH AS SUPPLIED: 8.5-9.5 (at 10% solids)

BOILING POINT: No Data Available

MELTING POINT: Decomposes

F: 1517 Deg

C: 825Deg

FREEZING POINT: No Data Available.

VAPOR PRESSURE (mmHg): No Data Available.

VAPOR DENSITY (AIR = 1): No Data Available.

SPECIFIC GRAVITY (H₂O = 1): No Data Available.

EVAPORATION RATE: No Data Available.

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID (STABILITY): Incompatible materials

INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides, hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxide, carbon dioxide, calcium oxide.

HAZARDOUS POLYMERIZATION: Does not occur.



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SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of industrial exposure to this product are by skin or eye contact and inhalation.

INHALATION: If dusts or particulates from these products are inhaled, irritation of the nose, throat, and lungs can occur. Symptoms may include sneezing, coughing, nasal congestion, and difficulty breathing. Symptoms are generally alleviated upon exposure to fresh air. If heated, chronic exposure to concentrations of silicon dioxide fume may cause chronic obstructive lung disease. Inhalation of iron oxide fume or dust is cause of pulmonary roentgen graphic appearance called siderosis, or an accumulation of iron that leads to reduced lung capacity. These products contain Crystalline Silica, which is a known human carcinogen. Chronic inhalation exposure to this material may cause silicosis, pulmonary fibrosis, bronchitis or present a hazard of cancer, due to the presence of Crystalline Silica.

CONTACT WITH SKIN or EYES: Skin contact may cause abrasion, redness, and discomfort. Prolonged and repeated skin exposure may cause dermatitis (dry, red skin). Direct eye contact with these products may cause stinging, abrasions, and redness. Dust can cause mechanical irritation to the eye. Repeated contact of dust with the eyes can cause conjunctivitis a disease that may cause eyes to become pink and sore), or can cause discoloration of the eyes.

SKIN ABSORPTION: This product does not pose a hazard of skin absorption.

INGESTION: Ingestion is an unlikely route of occupational exposure to this product. In the unlikely event that dusts from the product are ingested nausea, vomiting, and diarrhea may result. Repeated ingestion of iron compounds can cause vomiting, diarrhea, pink urine, black stool, and liver or kidney damage. Repeated ingestion of iron compounds can also cause siderosis, which is an accumulation of iron in tissues.

Chronic: Repeated inhalation exposure of crystalline silica above safe levels may cause adverse effects to the respiratory system. Chronic inhalation may result in pulmonary fibrosis. This product contains crystalline silica, which is a known human carcinogen.

SECTION 11 NOTES: The International Agency for Research on Cancer (IARC) classified (quartz) crystalline silica (cs) as a probable carcinogen and in 1997 reclassified it as a Group 1 carcinogen, i.e., that there was sufficient evidence for carcinogenicity in experimental animals and sufficient evidence for carcinogenicity in humans. In its Ninth Annual Report on Carcinogens, the National Toxicology Program (NTP) listed crystalline silica as a known human carcinogen, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to respirable crystalline silica and increased lung cancer rates in workers exposed to crystalline silica dust. The International Agency for Research on Cancer (IARC) has evaluated crystalline silica and determined that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)."

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Safe practices must be in place to prevent environmental contamination.

SECTION 12 NOTES: These products have not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric and aquatic environments should be avoided.



SAFETY DATA SHEET

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SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Waste from residue of this product is NOT hazardous waste according to the EPA regulations. Disposal by landfill may be acceptable. Waste disposal must follow all US Federal, State and Local (EPA) regulations, Canadian and European Governmental Guidelines.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: (DOT) These products are not classified as dangerous goods under the DOT regulations 49CFR: 172.101

WATER TRANSPORTATION: (IMO) Not classified as dangerous

AIR TRANSPORTATION: (ATA) Not classified as dangerous

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA: Components are listed as air contaminants. Regulation standards -29CFR. Standard number 1910.100 Table 2-1

TSCA (TOXIC SUBSTANCE CONTROL ACT): All components are listed on the TSCA inventory

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): Not Listed

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): The components of this product has been reviewed on the EAP Hazards Categories in section 311-312 and is considered a chronic health risk.

STATE REGULATIONS: This product can expose you to chemicals including Crystalline Silica which is known to the State of California to cause cancer. For more information, visit www.p65Warnings.ca.gov

CANADA WHIMS: (Workplace Hazardous Materials Information System) This SDS sheet contains all of the information needed by the CPR. (Controlled Products Regulation)

WHIMS CLASSIFICATION D2A: Very toxic (carcinogenicity)

EU CLASSIFICATION, LABELING: This product does meet the definition of hazard class described by the EUROPEAN UNION COUNCIL DIRECTIVE EC# 1272/2008. Classification information for components Crystalline Silica. EU Classification (xn) Harmful EU risk r68/20 harmful: Risk of irreversible damage through inhalation.



SAFETY DATA SHEET

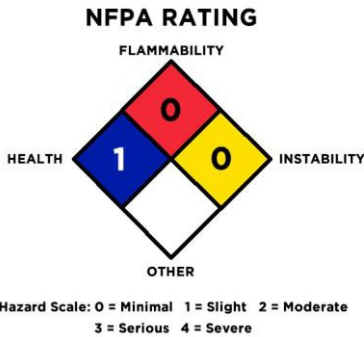
DATE: 1.2.21 Rev 10

SECTION 16: OTHER INFORMATION

Hazard Ratings:

Hazardous Material Identification System (HMIS): Health 1*, Flammability 0, Reactivity 0*chronic effects

National Fire Protection Association (NFPA): Health 1, Flammability 0, Reactivity 0



The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are correct. However, the information is provided without any warranty, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product.

If the product is used as a component in another product, this SDS information may not be applicable.

End of document



MARVEL OIL CO., INC.
2250 W. Pinehurst Blvd., STE 150
Addison, IL 60101

SAFETY DATA SHEET

1. Product and Company Identification

1.1 Product Identifier

Product Name: Marvel Air Tool Oil
Product Code (SKU): MM85R1 (50100), MM080R (50093) - See Section 15 for discontinued SKU's

1.2 Relevant Identified Uses Of The Substance

Product Use: Engine Oil Additive – Fuel additive (EPA Registered)

1.3 Details of the Supplier of the SDS

Company Name: Marvel Oil Company, Inc.
Street Address: 2250 W. Pinehurst Blvd., Suite 150
City, State, Zip Code: Addison, IL 60101

1.4 Emergency Telephone Numbers

Phone Number: 1(630)455-3700
Fax Number: 1(630)455-3868
Transportation: 1(800)424-9300 (CHEMTREC)
Medical Assistance: Call your local Poison Control Center

2. Hazard Identification:

2.1 Classification of the Substance or Mixture

Hazard Classification: Flammable liquid 3
Skin irritation 2
Reproductive Toxicity 2
Aspiration toxicity 1

2.2 Label Elements



Pictogram:

Signal Word: Danger

Hazard Statement: Flammable liquid and vapor. Causes skin irritation.
Suspected of damaging fertility of the un-born child. May be fatal if swallowed and enters airways.

Precautionary Statement: Keep away from heat, sparks, open flames or hot surfaces. Do not smoke. Keep containers tightly closed. Ground all containers and receiving equipment. Use explosion proof electrical, ventilation, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static

discharge. Wear protective gloves, clothing, eye glasses and face shield. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. If exposed, get medical attention. If on skin or hair, remove immediately all contaminated clothing and launder before re-use. Wash skin with soap and water. If skin irritation occurs, get medical attention. If swallowed, immediately call a poison control center or doctor. Do NOT induce vomiting. Store in a well ventilated place. Dispose of contents and container in accordance with all local, state, national and international regulations.

2.3 Other Hazards

Description of additional HNOC: None

3. Information on Ingredients:

3.1 Substance not applicable

3.2 Mixture

| <u>Component</u> | <u>CAS Number</u> | <u>Concentration (wt%)</u> |
|---|-------------------|----------------------------|
| Petroleum Distillates (Hydrotreated Heavy Naphthenic) | 64742-52-5 | 60-100% |
| Petroleum Distillates (Stoddard Solvent) | 8052-41-3 | 10-30% |
| Tricresyl Phosphate | 1330-78-5 | 0.1-1.0% |
| Ortho Dichlorobenzene | 95-50-1 | 0.1-1.0% |
| Para Dichlorobenzene | 106-46-7 | <0.1% |

4. First Aid Measures:

4.1 Description of First Aid Measures

Inhalation: Remove to fresh air and promote deep breathing. Get medical attention if effects persist or you feel un-well.

Skin: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and footwear. Launder clothing before re-use. Call a physician if irritation develops or persists.

Eyes: In case of eye contact, immediately flush eyes with plenty of water. Remove contact lenses if worn. If irritation persists, get medical attention

Ingestion: If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a poison control center or physician.

4.2 Most important symptoms and effects – acute and chronic

Inhalation: May cause respiratory tract irritation. Vapors may cause drowsiness or dizziness.

Skin: Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin.

Eyes: May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling.

Ingestion: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment

Symptoms may not appear immediately. Seek medical attention if effects develop or persist and you feel un-well.

5. Fire Fighting Measures:

5.1 Extinguishing media

Carbon dioxide, dry chemical, and alcohol foam

5.2 Special hazards arising from the substance or mixture

CO₂, CO, and hydrocarbons

5.3 Advice for Fire Fighters

Keep up wind of fire. Wear full firefighting turn out gear (full bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. See Section 8 for personal protection.

6. Accidental Release Measures:

6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate all source of ignition.

6.2 Methods and materials for containment and clean up

For containment: Contain and absorb spill with inert material. Place in suitable container for disposal. Do not flush to sewer or allow to enter waterways. See section 8 for PPE.

For clean up: Take up material and place in a suitable container. Vapors may be heavier than air and may travel along the ground to a distant source of ignition. Provide adequate ventilation.

7. Handling and Storage

7.1 Precautions for safe handling

Keep away from source of ignition. Do not smoke. Take precaution to eliminate static discharge. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Do not swallow. Do not eat or drink while handling. Wash hands with soap and water after handling. Use only non-sparking tools.

7.2 Conditions for safe storage including incompatibilities

Keep out of reach of children. Store in a well ventilated place. Do not store above 49°C (120°F).

7.3 Specific end uses

Shelf Life: Shelf life is considered to be 7 – 10 years when properly stored.

8. Exposure Control/Personal Protection:

8.1 Control parameters

| <u>Exposure Limits</u> | <u>8 hr TWA:</u> | <u>(OSHA PEL)</u> | <u>(ACGIH TWA)</u> |
|---|------------------|-------------------|--------------------|
| Petroleum Distillates (Hydrotreated Heavy Naphthenic) | | not applicable | not applicable |
| Petroleum Distillates (Stoddard Solvent) | | 500 ppm | 100 ppm |
| Tricresyl Phosphate | | not applicable | not applicable |
| Ortho Dichlorobenzene | | 50 ppm | 25 ppm |
| Para Dichlorobenzene | | 75 ppm | 10 ppm |

8.2 Exposure controls

Use adequate ventilation to keep exposure below recommended limits. Ensure that eye wash station and safety shower are close to work station.

Hand Protection Equipment: Wear chemical resistant gloves to prevent skin contact.

Eye Protection Equipment: Wear safety glasses or splash goggles to prevent eye contact.

Skin and Body Protection: Wear suitable protective clothing.

Respiration/Ventilation Protection Requirements: Provide good ventilation.

Ingestion Protection Requirements: Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. Launder all clothing and foot wear before re-use.

9. Physical And Chemical Properties:

9.1 Information of basic chemical and physical properties

| | |
|---|--|
| Physical Form: | thin liquid |
| Color: | clear red |
| Odor: | typical oily |
| Odor Threshold: | not available |
| pH: | not applicable – oil based product |
| Melting Point/Freeze Point: | -51°C (-60°F) |
| Initial Boiling Point: | not available |
| Flash Point (Seta Closed Cup): | 53°C (128°F) |
| Flammability Limits: | Explosive Limits: Upper: not available Lower: not available |
| Evaporation Rate: | not available |
| Flammability Solid/Gas: | not applicable |
| Vapor Pressure: | not available |
| Vapor Density: | not available |
| Specific Gravity: | 0.876 |
| Solubility in Water: | insoluble |
| Auto Ignition Temperature: | not available |
| Partition coefficient (n/octonol/water): | not available |
| Viscosity (Kinimatic @ 100°C): | 2.0 – 3.0 cSt |

9.2 Other information

| | |
|------------------------------------|--------|
| % NVM by Weight: | 75.0% |
| % VOC Content (California): | 24.92% |

10. Stability and Reactivity:

10.1 Reactivity

Does not react under normal conditions

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Does not react under normal conditions

10.4 Conditions to avoid

Heat and incompatible materials

10.5 Incompatible materials

Strong oxidizers such as bleach and peroxides

10.6 Hazardous decomposition products

CO₂, CO and hydrocarbons

11. Toxicological Information:

11.1 Information on Toxicological effects

Marvel Mystery Oil

LD50 – Oral Rat >2000 mg/Kg
LD50 – Dermal Rabbit >2000 mg/Kg
LC50 – Inhalation Rat >20 mg/L (4 hr)

Petroleum Distillates Hydrotreated Heavy Naphthenic (64742-52-5)

LD50 – Oral Rat >5000 mg/Kg
LD50 – Dermal Rabbit >5000 mg/Kg
LC50 – Inhalation Rat >5 mg/L (4 hr)

Tricresyl Phosphate (1330-78-5)

LD50 – Oral Rat 3000 mg/Kg

o-Dichlorobenzene (95-50-1)

LD50 – Oral Rat 500 mg/Kg
LD50 – Dermal Rabbit >10000 mg/Kg
LC50 – Inhalation Rat 8.15 mg/L (4 hr)

p-Dichlorobenzene (106-46-7)

LD50 – Oral Rat >2000 mg/Kg
LD50 – Dermal Rabbit >2000 mg/Kg

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | Causes skin irritation |
| Serious eye damage/irritation | Based on available data, classification data are not met |
| Respiratory or skin sensitization | Based on available data, classification data are not met |
| Germ cell mutagenicity | Based on available data, classification data are not met |
| Carcinogenicity | Based on available data, classification data are not met |

o-Dichlorobenzene (95-50-1) IARC Group 3 – Not Classified

| | |
|--|--|
| p-dichlorobenzene (106-46-7) | IARC Group 2B – Possible carcinogen to humans. NTP 1-Evidence of Carcinogenicity 3, Reasonably anticipated to be a human Carcinogen |
| Reproductive toxicity | Suspected of damaging fertility of un-born child |
| Specific target organs – single exposure | Based on available data, classification data are not met |
| Specific target organs – repeated exposure | Based on available data, classification data are not met |
| Aspiration hazard | May be fatal if swallowed and enters air ways. |
| Symptoms/injuries after inhalation | May cause respiratory tract irritation. Vapors may cause drowsiness and dizziness. |
| Symptoms/injuries after skin contact | Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin. |
| Symptoms/injuries after eye contact | May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling. |
| Symptoms/injuries after ingestion | May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting. |

12. Ecological Information:

12.1 Toxicity

Not recommended for release into aquatic systems without treatment

12.2 Persistence and degradability

Not established

12.3 Bioaccumulative potential

Not established

12.4 Mobility in soil

Not established

12.5 Other adverse effects

None known

13. Disposal Considerations:

13.1 Waste treatment methods

RCRA Hazardous Waste:

Regulated as a hazardous waste (D-001 Ignitable).

Waste Disposal Method:

Dispose of in accordance with local, state and federal regulations

Waste Disposal Vessel:

Metal drums are recommended.

14. Transportation Information:

14.1 UN number

1268

14.2 UN Proper shipping name

Petroleum Distillate n.o.s.

14.3 Transport Hazard class

3

14.4 Packaging group

III

14.5 Marine Pollutant

No

14.6 Transportation in Bulk

Not applicable

14.7 Special precautions

Use limited quantities

15. Regulatory Information:**15.1 US Federal Regulations**

TSCA Status: All ingredients are commercially available and listed by the manufacturer under TSCA.

15.2 Foreign Regulations

Canadian Status: All materials contained in this product are listed on the Canadian Domestic Substance List (DSL). Consult Turtle Wax, Inc. regarding status of ingredients.

European Union: All materials contained in this product are listed on EINECS.

AICS: All materials are registered for AICS (Australia)

15.3 State Regulations**State Regulatory Information:**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements, contact the appropriate agency in your state.

California Prop 65:

| <u>CAS Number</u> | <u>Concentration</u> | <u>State Code</u> |
|------------------------------|----------------------|-------------------|
| p-Dichlorobenzene (106-46-7) | <0.1% | Cancer |

15.4 HMIS & NFPA Classifications

| | | |
|----------------------|--------------|---|
| HMIS Classification: | Health | 2 |
| | Flammability | 2 |
| | Reactivity | 0 |
| NFPA Classification: | Health | 2 |
| | Flammability | 2 |

Reactivity 0

15.5 Discontinued SKU's All discontinued SKU's used this same formula.

MM080, MM085, MM85R, MM086, MM088R, MM089

16. Other Information:

| | |
|--------------------------|--|
| Reason For Issue | Address Update |
| Prepared By | James Heidel |
| Preparer's Title | Technical Director, R&D |
| SDS Administrator | Jean Mayszak - Technical Compliance Manager, R&D |
| Approval Date | January 26, 2017 |
| Supersedes Date | March 10, 2015 |
| Revision Number | #12 |

This information is, to the best of Turtle Wax, Inc.'s knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy oneself as to the suitability and completeness of such information for their own particular use.



MARVEL OIL CO., INC.
2250 W. Pinehurst Blvd., STE 150
Addison, IL 60101

SAFETY DATA SHEET

1. Product and Company Identification

1.1 Product Identifier

Product Name: Marvel Air Tool Oil
Product Code (SKU): MM85R1 (50100), MM080R (50093) - See Section 15 for discontinued SKU's

1.2 Relevant Identified Uses Of The Substance

Product Use: Engine Oil Additive – Fuel additive (EPA Registered)

1.3 Details of the Supplier of the SDS

Company Name: Marvel Oil Company, Inc.
Street Address: 2250 W. Pinehurst Blvd., Suite 150
City, State, Zip Code: Addison, IL 60101

1.4 Emergency Telephone Numbers

Phone Number: 1(630)455-3700
Fax Number: 1(630)455-3868
Transportation: 1(800)424-9300 (CHEMTREC)
Medical Assistance: Call your local Poison Control Center

2. Hazard Identification:

2.1 Classification of the Substance or Mixture

Hazard Classification: Flammable liquid 3
Skin irritation 2
Reproductive Toxicity 2
Aspiration toxicity 1

2.2 Label Elements



Pictogram:

Signal Word: Danger

Hazard Statement: Flammable liquid and vapor. Causes skin irritation. Suspected of damaging fertility of the un-born child. May be fatal if swallowed and enters airways.

Precautionary Statement: Keep away from heat, sparks, open flames or hot surfaces. Do not smoke. Keep containers tightly closed. Ground all containers and receiving equipment. Use explosion proof electrical, ventilation, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static

discharge. Wear protective gloves, clothing, eye glasses and face shield. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. If exposed, get medical attention. If on skin or hair, remove immediately all contaminated clothing and launder before re-use. Wash skin with soap and water. If skin irritation occurs, get medical attention. If swallowed, immediately call a poison control center or doctor. Do NOT induce vomiting. Store in a well ventilated place. Dispose of contents and container in accordance with all local, state, national and international regulations.

2.3 Other Hazards

Description of additional HNO: None

3. Information on Ingredients:

3.1 Substance not applicable

3.2 Mixture

| <u>Component</u> | <u>CAS Number</u> | <u>Concentration (wt%)</u> |
|---|-------------------|----------------------------|
| Petroleum Distillates (Hydrotreated Heavy Naphthenic) | 64742-52-5 | 60-100% |
| Petroleum Distillates (Stoddard Solvent) | 8052-41-3 | 10-30% |
| Tricresyl Phosphate | 1330-78-5 | 0.1-1.0% |
| Ortho Dichlorobenzene | 95-50-1 | 0.1-1.0% |
| Para Dichlorobenzene | 106-46-7 | <0.1% |

4. First Aid Measures:

4.1 Description of First Aid Measures

Inhalation: Remove to fresh air and promote deep breathing. Get medical attention if effects persist or you feel un-well.

Skin: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and footwear. Launder clothing before re-use. Call a physician if irritation develops or persists.

Eyes: In case of eye contact, immediately flush eyes with plenty of water. Remove contact lenses if worn. If irritation persists, get medical attention

Ingestion: If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a poison control center or physician.

4.2 Most important symptoms and effects – acute and chronic

Inhalation: May cause respiratory tract irritation. Vapors may cause drowsiness or dizziness.

Skin: Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin.

Eyes: May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling.

Ingestion: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment

Symptoms may not appear immediately. Seek medical attention if effects develop or persist and you feel un-well.

5. Fire Fighting Measures:

5.1 Extinguishing media

Carbon dioxide, dry chemical, and alcohol foam

5.2 Special hazards arising from the substance or mixture

CO₂, CO, and hydrocarbons

5.3 Advice for Fire Fighters

Keep up wind of fire. Wear full firefighting turn out gear (full bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. See Section 8 for personal protection.

6. Accidental Release Measures:

6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate all source of ignition.

6.2 Methods and materials for containment and clean up

For containment: Contain and absorb spill with inert material. Place in suitable container for disposal. Do not flush to sewer or allow to enter waterways. See section 8 for PPE.

For clean up: Take up material and place in a suitable container. Vapors may be heavier than air and may travel along the ground to a distant source of ignition. Provide adequate ventilation.

7. Handling and Storage

7.1 Precautions for safe handling

Keep away from source of ignition. Do not smoke. Take precaution to eliminate static discharge. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Do not swallow. Do not eat or drink while handling. Wash hands with soap and water after handling. Use only non-sparking tools.

7.2 Conditions for safe storage including incompatibilities

Keep out of reach of children. Store in a well ventilated place. Do not store above 49°C (120°F).

7.3 Specific end uses

Shelf Life: Shelf life is considered to be 7 – 10 years when properly stored.

8. Exposure Control/Personal Protection:

8.1 Control parameters

| <u>Exposure Limits</u> | <u>8 hr TWA:</u> | <u>(OSHA PEL)</u> | <u>(ACGIH TWA)</u> |
|---|------------------|-------------------|--------------------|
| Petroleum Distillates (Hydrotreated Heavy Naphthenic) | | not applicable | not applicable |
| Petroleum Distillates (Stoddard Solvent) | | 500 ppm | 100 ppm |
| Tricresyl Phosphate | | not applicable | not applicable |
| Ortho Dichlorobenzene | | 50 ppm | 25 ppm |
| Para Dichlorobenzene | | 75 ppm | 10 ppm |

8.2 Exposure controls

Use adequate ventilation to keep exposure below recommended limits. Ensure that eye wash station and safety shower are close to work station.

Hand Protection Equipment: Wear chemical resistant gloves to prevent skin contact.

Eye Protection Equipment: Wear safety glasses or splash goggles to prevent eye contact.

Skin and Body Protection: Wear suitable protective clothing.

Respiration/Ventilation Protection Requirements: Provide good ventilation.

Ingestion Protection Requirements: Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. Launder all clothing and foot wear before re-use.

9. Physical And Chemical Properties:

9.1 Information of basic chemical and physical properties

| | |
|---|--|
| Physical Form: | thin liquid |
| Color: | clear red |
| Odor: | typical oily |
| Odor Threshold: | not available |
| pH: | not applicable – oil based product |
| Melting Point/Freeze Point: | -51°C (-60°F) |
| Initial Boiling Point: | not available |
| Flash Point (Seta Closed Cup): | 53°C (128°F) |
| Flammability Limits: | Explosive Limits: Upper: not available Lower: not available |
| Evaporation Rate: | not available |
| Flammability Solid/Gas: | not applicable |
| Vapor Pressure: | not available |
| Vapor Density: | not available |
| Specific Gravity: | 0.876 |
| Solubility in Water: | insoluble |
| Auto Ignition Temperature: | not available |
| Partition coefficient (n/octonol/water): | not available |
| Viscosity (Kinimatic @ 100°C): | 2.0 – 3.0 cSt |

9.2 Other information

| | |
|------------------------------------|--------|
| % NVM by Weight: | 75.0% |
| % VOC Content (California): | 24.92% |

10. Stability and Reactivity:

10.1 Reactivity

Does not react under normal conditions

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Does not react under normal conditions

10.4 Conditions to avoid

Heat and incompatible materials

10.5 Incompatible materials

Strong oxidizers such as bleach and peroxides

10.6 Hazardous decomposition products

CO₂, CO and hydrocarbons

11. Toxicological Information:

11.1 Information on Toxicological effects

Marvel Mystery Oil

| | |
|-----------------------|-----------------|
| LD50 – Oral Rat | >2000 mg/Kg |
| LD50 – Dermal Rabbit | >2000 mg/Kg |
| LC50 – Inhalation Rat | >20 mg/L (4 hr) |

Petroleum Distillates Hydrotreated Heavy Naphthenic (64742-52-5)

| | |
|-----------------------|----------------|
| LD50 – Oral Rat | >5000 mg/Kg |
| LD50 – Dermal Rabbit | >5000 mg/Kg |
| LC50 – Inhalation Rat | >5 mg/L (4 hr) |

Tricresyl Phosphate (1330-78-5)

| | |
|-----------------|------------|
| LD50 – Oral Rat | 3000 mg/Kg |
|-----------------|------------|

o-Dichlorobenzene (95-50-1)

| | |
|-----------------------|------------------|
| LD50 – Oral Rat | 500 mg/Kg |
| LD50 – Dermal Rabbit | >10000 mg/Kg |
| LC50 – Inhalation Rat | 8.15 mg/L (4 hr) |

p-Dichlorobenzene (106-46-7)

| | |
|----------------------|-------------|
| LD50 – Oral Rat | >2000 mg/Kg |
| LD50 – Dermal Rabbit | >2000 mg/Kg |

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/irritation

Based on available data, classification data are not met

Respiratory or skin sensitization

Based on available data, classification data are not met

Germ cell mutagenicity

Based on available data, classification data are not met

Carcinogenicity

Based on available data, classification data are not met

o-Dichlorobenzene (95-50-1)

IARC Group 3 – Not Classified

| | |
|--|--|
| p-dichlorobenzene (106-46-7) | IARC Group 2B – Possible carcinogen to humans. NTP 1-Evidence of Carcinogenicity 3, Reasonably anticipated to be a human Carcinogen |
| Reproductive toxicity | Suspected of damaging fertility of un-born child |
| Specific target organs – single exposure | Based on available data, classification data are not met |
| Specific target organs – repeated exposure | Based on available data, classification data are not met |
| Aspiration hazard | May be fatal if swallowed and enters air ways. |
| Symptoms/injuries after inhalation | May cause respiratory tract irritation. Vapors may cause drowsiness and dizziness. |
| Symptoms/injuries after skin contact | Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin. |
| Symptoms/injuries after eye contact | May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling. |
| Symptoms/injuries after ingestion | May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting. |

12. Ecological Information:

12.1 Toxicity

Not recommended for release into aquatic systems without treatment

12.2 Persistence and degradability

Not established

12.3 Bioaccumulative potential

Not established

12.4 Mobility in soil

Not established

12.5 Other adverse effects

None known

13. Disposal Considerations:

13.1 Waste treatment methods

RCRA Hazardous Waste:

Regulated as a hazardous waste (D-001 Ignitable).

Waste Disposal Method:

Dispose of in accordance with local, state and federal regulations

Waste Disposal Vessel:

Metal drums are recommended.

14. Transportation Information:

14.1 UN number

1268

14.2 UN Proper shipping name

Petroleum Distillate n.o.s.

14.3 Transport Hazard class

3

14.4 Packaging group

III

14.5 Marine Pollutant

No

14.6 Transportation in Bulk

Not applicable

14.7 Special precautions

Use limited quantities

15. Regulatory Information:

15.1 US Federal Regulations

TSCA Status: All ingredients are commercially available and listed by the manufacturer under TSCA.

15.2 Foreign Regulations

Canadian Status: All materials contained in this product are listed on the Canadian Domestic Substance List (DSL). Consult Turtle Wax, Inc. regarding status of ingredients.

European Union: All materials contained in this product are listed on EINECS.

AICS: All materials are registered for AICS (Australia)

15.3 State Regulations

State Regulatory Information:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements, contact the appropriate agency in your state.

California Prop 65:

| <u>CAS Number</u> | <u>Concentration</u> | <u>State Code</u> |
|------------------------------|----------------------|-------------------|
| p-Dichlorobenzene (106-46-7) | <0.1% | Cancer |

15.4 HMIS & NFPA Classifications

| | | |
|----------------------|--------------|---|
| HMIS Classification: | Health | 2 |
| | Flammability | 2 |
| | Reactivity | 0 |
| NFPA Classification: | Health | 2 |
| | Flammability | 2 |

Reactivity 0

15.5 Discontinued SKU's All discontinued SKU's used this same formula.

MM080, MM085, MM85R, MM086, MM088R, MM089

16. Other Information:

| | |
|--------------------------|--|
| Reason For Issue | Address Update |
| Prepared By | James Heidel |
| Preparer's Title | Technical Director, R&D |
| SDS Administrator | Jean Mayszak - Technical Compliance Manager, R&D |
| Approval Date | January 26, 2017 |
| Supersedes Date | March 10, 2015 |
| Revision Number | #12 |

This information is, to the best of Turtle Wax, Inc.'s knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy oneself as to the suitability and completeness of such information for their own particular use.



Mr. Muscle Oven & Grill Cleaner

Version Number: 2

Preparation date: 2015-05-28

1. IDENTIFICATION

Product name: Mr. Muscle Oven & Grill Cleaner
Product Code: 100859417
SDS #: MS0800539
Recommended use: • Oven and Grill Cleaner
Uses advised against: Uses other than those identified are not recommended

| | |
|---|---|
| Manufacturer, importer, supplier: US Headquarters Diversey, Inc. 2415 Cascade Pointe Blvd. Charlotte, NC 28208 Phone: 1-888-352-2249 SDS Internet Address: https://sds.diversey.com | Canadian Headquarters Sealed Air - Canada 3755 Laird Road Units 8-11 Mississauga, Ontario L5L 0B3 Phone: 1-800-668-7171 |
|---|---|

Emergency telephone number: 1-800-851-7145; 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

| | |
|-----------------------------------|-------------|
| Skin corrosion/irritation | Category 1A |
| Serious eye damage/eye irritation | Category 1 |
| Metal Corrosion: | Category 1 |



Signal Word: Danger.

Precautionary Statements

CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY BE CORROSIVE TO METALS.

Causes burns/ serious damage to mouth, throat and stomach. Keep container tightly closed. Keep only in original container. Do not breathe spray. Avoid contact with eyes, skin and clothing. Wash affected areas thoroughly after handling. Wear chemical-splash goggles, long chemical-resistant gloves and protective footwear when spraying and wiping. Do not spray towards face. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician. Absorb spillage to prevent material damage. Store in corrosive-resistant container with a resistant inner liner. Dispose of in accordance with all federal, state and local applicable regulations. SUPPLEMENTAL INFORMATION: Mix only with water. DO NOT MIX WITH ANY OTHER PRODUCT OR CHEMICAL. Can react to release hazardous gases. May vigorously react with acids resulting in spattering and excessive heat.

Health hazards not otherwise classified (HHNOC) - Not applicable

Physical hazards not otherwise classified (PHNOC) - Not applicable

Classification for the diluted product @ RTU

This product is intended to be used neat.

Precautionary Statements

See undiluted product information above. SUPPLEMENTAL INFORMATION: Mix only with water. DO NOT MIX WITH ANY OTHER PRODUCT OR CHEMICAL. Can react to release hazardous gases. May vigorously react with acids resulting in spattering and excessive heat.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients

| Ingredient(s) | CAS # | Weight % |
|-----------------------------------|------------|----------|
| Sodium hydroxide | 1310-73-2 | 10 - 20% |
| Diethylene glycol monoethyl ether | 111-90-0 | 5 - 10% |
| Alkyl Glucoside | 68515-73-1 | 1 - < 3% |

*Exact percentages are being withheld as trade secret information

4. FIRST AID MEASURES

Undiluted Product:

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

Skin: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Aggravated Medical Conditions: Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

Diluted Product:

This product is intended to be used neat.

Eyes: See undiluted product information above.

Skin: See undiluted product information above.

Inhalation: See undiluted product information above.

Ingestion: See undiluted product information above.

5. FIRE-FIGHTING MEASURES

Specific methods: None known

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards: Not applicable.

Special protective equipment for firefighters: As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

Extinguishing media which must not be used for safety reasons: The product is not flammable.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Put on appropriate personal protective equipment (see Section 8.).

Environmental precautions and clean-up methods: Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Mix only with water. Do not mix with any other product or chemical. Can react to release hazardous gases. May vigorously react with acids resulting in spattering and excessive heat. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Keep tightly closed in a dry, cool and well-ventilated place.

Aerosol Level (if applicable): Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

| Ingredient(s) | CAS # | ACGIH | OSHA |
|-----------------------------------|------------|-------------------------------|---------------------------|
| Sodium hydroxide | 1310-73-2 | 2 mg/m ³ (Ceiling) | 2 mg/m ³ (TWA) |
| Diethylene glycol monoethyl ether | 111-90-0 | - | - |
| Alkyl Glucoside | 68515-73-1 | - | - |

Undiluted Product:

Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

Personal Protective Equipment

| | |
|----------------------------------|--|
| Eye protection: | Chemical-splash goggles. |
| Hand protection: | Long chemical-resistant gloves. |
| Skin and body protection: | Protective footwear. If major exposure is possible, wear suitable protective clothing and footwear. |
| Respiratory protection: | In case of insufficient ventilation wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

Diluted Product:

This product is intended to be used neat.

Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels

Personal Protective Equipment

| | |
|----------------------------------|--|
| Eye protection: | Chemical-splash goggles. |
| Hand protection: | Long chemical-resistant gloves. |
| Skin and body protection: | Protective footwear. If major exposure is possible, wear suitable protective clothing and footwear. |
| Respiratory protection: | In case of insufficient ventilation wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Evaporation Rate: No information available

Odor threshold: No information available.

Melting point/range: Not determined

Autoignition temperature: No information available

Solubility in other solvents: No information available

Density: 9.34 lbs/gal 1.12 Kg/L

Bulk density: No information available

Flash point (°F): > 200 °F > 93.3 °C

Dilution Flash Point (°F): > 200 > 93.3

Elemental Phosphorus: 0 % by wt.

pH: 13

Dilution pH: 13 @ RTU

Corrosion to metals: Corrosive

Explosion limits: - upper: Not determined - lower: Not determined

Color: Clear, Brown

Odor: Surfactant

Boiling point/range: Not determined

Decomposition temperature: Not determined

Solubility: Completely Soluble

Relative Density (relative to water): 1.12

Vapor density: No information available

Vapor pressure: No information available.

Partition coefficient (n-octanol/water): No information available

Viscosity: No information available

VOC: 0.24 % *

VOC % by wt. at use dilution 0.24 % *

Flammability (Solid or Gas): Not applicable

Sustained combustion: Not applicable

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity:

Not Applicable

Stability:

Stable

Possibility of hazardous reactions:

May vigorously react with acids resulting in spattering and excessive heat.

Hazardous decomposition products:

Oxides of carbon.

Materials to avoid:

Acids. Soft metals. Strong acids. Do not mix with any other product or chemical unless specified in the use directions.

Conditions to avoid:

Do not mix with any other product or chemical.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye contact, Skin contact, Inhalation, Ingestion

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: Corrosive. Causes severe burns. Symptoms may include burns, blisters, redness and pain (which may be delayed).

Eye contact: Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.

Ingestion: Causes burns/ serious damage to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

Inhalation: May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.

Sensitization: No known effects.

Target Organs (SE): None known

Target Organs (RE): None known

Numerical measures of toxicity

ATE - Oral (mg/kg): 3600

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products (undiluted product): The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation

Waste from residues / unused products (diluted product): This product, when diluted as stated on this SDS, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

RCRA Hazard Class (undiluted product): D002 Corrosive Waste

RCRA Hazard Class (diluted product): Not Regulated

Contaminated Packaging: Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Bill of Lading/receiving documents for up to date shipping information.

DOT (Ground) Bill of Lading Description: UN1824, SODIUM HYDROXIDE SOLUTION, 8, II

IMDG (Ocean) Bill of Lading Description: UN1824, SODIUM HYDROXIDE SOLUTION, 8, II

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

RIGHT TO KNOW (RTK)

| Ingredient(s) | CAS # | MARTK: | NJRTK: | PARTK: | RIRTK: |
|------------------|-----------|--------|--------|--------|--------|
| Water | 7732-18-5 | - | - | - | - |
| Sodium hydroxide | 1310-73-2 | X | X | X | X |

| | | | | | |
|-----------------------------------|------------|---|---|---|---|
| Diethylene glycol monoethyl ether | 111-90-0 | - | X | - | - |
| Alkyl Glucoside | 68515-73-1 | - | - | - | - |
| Xanthan gum | 11138-66-2 | - | - | - | - |

CERCLA/ SARA

| Ingredient(s) | CAS # | Weight % | CERCLA/SARA RQ (lbs) | Section 302 TPQ (lbs) | Section 313 |
|-----------------------------------|-----------|----------|----------------------|-----------------------|-------------|
| Sodium hydroxide | 1310-73-2 | 10 - 20% | 1000 | | |
| Diethylene glycol monoethyl ether | 111-90-0 | 5 - 10% | | | X |

| Ingredient(s) | CAA HAP | CAA ODS | CWA Priority Pollutants |
|-----------------------------------|---------|---------|-------------------------|
| Diethylene glycol monoethyl ether | X | | |

Canadian Regulations

16. OTHER INFORMATION

NFPA (National Fire Protection Association)
 Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 3
Flammability 0
Instability 0

Version Number: 2
Preparation date: 2015-05-28

Reason for revision: Not applicable
Prepared by: NAPRAC
Additional advice: • Does not contain an added fragrance

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

NICKEL-GRAF™ AEROSOL

Nickel and Graphite Anti-Seize Compound

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: Aerosol Nickel-Graf™ Anti-Seize

Manufacturer: Anti-Seize Technology
2345 N. 17th Ave.
Franklin Park, IL 60131
Phone: 847-455-2300
Toll Free: 800 991-1106
Web: antiseize.com

Emergency Phone Number: Infotrac 24/7 Phone: 1-800-535-5053 (US & Canada)
or 352-323-3500 (International)

Product Use: Anti-Seize Compound

Restriction on Use: Use only as directed

SDS Date of Preparation: Sept. 9, 2015

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):

Flammable Aerosol Category 1

Gases Under Pressure – Compressed Gas

Skin Irritation Category 2

Skin Sensitization Category 1

Eye Irritation Category 2A

Aspiration Hazard Category 1

Specific Target Organ Toxicity – Single Exposure Category 3 (Narcotic effects)

Contains a suspected carcinogen Category 2

Label Elements:



Signal Word: DANGER

Hazard Phrases:

Suspected of causing cancer through inhalation
Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.

Precautionary Phrases:

Prevention :

Do not handle until all safety precautions have been read.
Wash thoroughly after handling.
Wear protective gloves, eye and face protection.
Avoid breathing mist or spray.
Use only outdoors or in a well-ventilated area.
Take off contaminated clothing and wash it before reuse.
Keep away from heat, sparks, open flames or hot surfaces. No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical attention.

IF ON SKIN: Wash with soap and water.

If skin irritation occurs: Get medical attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Do NOT induce vomiting

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

Storage

Store in a well-ventilated place.
Store locked up.
Store at temperatures not exceeding 122°F (50°C)

Disposal

Dispose of contents in accordance with local, regional and national regulations.

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|---|-------------|----------|
| Hexane | 110-54-3 | 30-60 |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-65-0 | 8-12 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 8-12 |
| Propane | 74-98-6 | 5-15 |

| | | |
|----------|-----------|------|
| Butane | 106-97-8 | 5-15 |
| Nickel | 7740-02-0 | 5-15 |
| Graphite | 7782-42-5 | 3-7 |
| Aluminum | 7429-90-5 | 1-3 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Immediately flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: In case of contact, wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: Aspiration Hazard. DO NOT induce vomiting. Get immediate medical attention.

Most Important symptoms and effects, both acute and delayed: Causes eye and skin irritation. Product is an aspiration hazard. May enter the lungs during swallowing or vomiting and cause lung damage. Inhalation may cause irritation, headache, dizziness and drowsiness.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention required for ingestion.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use water spray or fog, foam, carbon dioxide or dry chemical.

Special Hazards Arising from the Chemical: Extremely flammable aerosol. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 120°F may cause cans to burst. Combustion may produce carbon dioxide, carbon monoxide.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Protect against bursting cans.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Eliminate all sources of ignition with explosion-proof

equipment. Ventilate area.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Place leaking container into a suitable container and place in a well-ventilated area until the propellant has dissipated. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid breathing vapors and mists. Use with adequate ventilation. Keep away from heat sources. Contents under pressure. Do not puncture or incinerate container. Do not smoke while using.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area at temperatures below 120°F. Do not store in direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|---|--|
| Hexane | 500ppm OSHA PEL 50ppm ACGIH, TLV |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 5 mg/m ³ TWA ACGIH TLV (inhalation) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACGIH TLV (inhalation) |
| Propane | 1000 ppm TWA OSHA PEL |
| Butane | 1000 ppm STEL ACGIH TLV |
| Nickel Powder | 1.5 mg/m ³ TWA ACGIH TLV (inhalable) 1 mg/m ³ TWA OSHA PEL |
| Graphite | 2 mg/m ³ TWA ACGIH TLV respirable 15 mg/m ³ TWA OSHA PEL total dust 5 mg/m ³ TWA OSHA PEL respirable fraction |
| Aluminum, dust or fume | 1 mg/m ³ TWA ACGIH TLV 15 mg/m ³ TWA OSHA PEL total dust 5 mg/m ³ TWA OSHA PEL respirable fraction |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits .

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as nitrile recommended where needed to avoid skin contact .

Eye Protection: Safety goggles recommended where needed to avoid eye contact.

| |
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| SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES |
|--|

| | |
|--|---|
| Appearance: Aerosol | Vapor Density (air = 1): >1 |
| Odor: Mild odor | Specific Gravity: 0.7 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Not available | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: -44 to 208 °F | Decomposition Temperature: Not available |
| Flash Point: -141 °F (propellant) | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: No data | Aerosol Fire Protection Level: Level 2 Aerosol (NFPA 30B) |
| VOC Content: 39.81% | Flammability (solid, gas): Propellant if a flammable gas |

| |
|---|
| SECTION 10: STABILITY AND REACTIVITY |
|---|

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Keep away from heat, sparks, flames and other sources of ignition. Dropping containers may cause bursting.

Incompatible Materials: Avoid strong oxidizing agents and acids.

Hazardous Decomposition Products: Thermal decomposition may produce carbon dioxide, carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: Causes serious eye irritation.

Skin: Contact may cause irritation and drying of the skin.

Inhalation: Mist or vapor can irritate the throat and lungs. High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

Ingestion: If swallowed, this material may cause irritation of the mouth, throat and esophagus. Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea, dizziness, drowsiness and other central nervous system effects. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

Chronic Hazards: None known.

Carcinogen Status:

NTP: Anticipated carcinogen **IARC:** Group 2B **OSHA:** No

Acute Toxicity Values:

Hexane: Oral rat LD50 >5000 mg/kg, inhalation rat LC50 \geq 29.29 mg/L, dermal rabbit LD50 >2000 mg/kg

Distillates (petroleum), solvent-dewaxed heavy paraffinic: Oral rat LD50 > 5000 mg/kg
Inhalation rat LC50: 2.18 mg/L, Dermal rabbit LD50 > 2000 mg/kg

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg,
Inhalation rat LC50: 1.8 mg/L, dermal rabbit LD50 > 2000 mg/kg

Nickel Powder: Oral rat LD50 > 9000 mg/kg

Graphite: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 2 mg/L

Aluminum Powder: Oral rat LD50 > 15900 mg/kg, inhalation rat LC50 > 0.888 mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Nickel Powder: Oncorhynchus mykiss LC50: 15.3 mg/L/96hr, Pimephales promelas NOEC: 0.057 mg/L/32days

Graphite: Danio rerio LC50 > 100 mg/L/96hr

Distillates (petroleum), hydrotreated heavy naphthenic: Pimephales promelas LL50 > 100 mg/L/96hr.

Aluminum Powder: Lepomis cyanellus NOEC > 50 mg/L/96hr

Persistence and Degradability: Acetone and hexane are readily biodegradable.

Bioaccumulative Potential: Acetone is not Bioaccumulative. Hexane may bioaccumulate based on a log Kow of 4.66

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations. Do not puncture or incinerate containers. When contents are depleted, continue to depress button until all gas is expelled.

SECTION 14: TRANSPORT INFORMATION

DOT Proper Shipping Name: UN1950, Aerosols, Limited Quantity

DOT Technical Name: None

DOT Hazard Class: 2.1

UN Number: UN1950

DOT Labels Required (49CFR172.101): LTD QTY

IMDG Shipping Description: UN1950, Aerosols, Limited Quantity,

ID Number: UN1950

Hazard Class: 2.1

Packing Group: None

Labels Required: None

Marking Required: Limited Quantity Mark

Placards Required: Limited Quantity

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product has an RQ of 16,666 lbs based on the RQ for acetone of 5000 lbs. In addition, oil spills are reportable to the National

Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

This product has a Reportable Quantity (RQ) of 500 lbs. based on the RQ for Nickel of 100 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Fire Hazard, Pressure Hazard, Acute Health

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: Aluminum Powder 1-5%, Nickel Powder 20-30%

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: This product contains the following substances known to the state of California to cause cancer and/or reproductive toxicity: Nickel

| |
|--------------------------------------|
| SECTION 16: OTHER INFORMATION |
|--------------------------------------|

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

NICKEL-GRAF™ AEROSOL

Nickel and Graphite Anti-Seize Compound

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: Aerosol Nickel-Graf™ Anti-Seize

Manufacturer: Anti-Seize Technology
2345 N. 17th Ave.
Franklin Park, IL 60131
Phone: 847-455-2300
Toll Free: 800 991-1106
Web: antiseize.com

Emergency Phone Number: Infotrac 24/7 Phone: 1-800-535-5053 (US & Canada)
or 352-323-3500 (International)

Product Use: Anti-Seize Compound

Restriction on Use: Use only as directed

SDS Date of Preparation: December 19, 2017

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):

Flammable Aerosol Category 1

Gases Under Pressure – Compressed Gas

Skin Irritation Category 2

Skin Sensitization Category 1

Eye Irritation Category 2A

Aspiration Hazard Category 1

Specific Target Organ Toxicity – Single Exposure Category 3 (Narcotic effects)

Contains a suspected carcinogen Category 2

Label Elements:



Signal Word: DANGER

Hazard Phrases:

Suspected of causing cancer through inhalation
 Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes skin irritation.
 Causes serious eye irritation.
 May be fatal if swallowed and enters airways.
 May cause drowsiness or dizziness.

Precautionary Phrases:**Prevention :**

Do not handle until all safety precautions have been read.
 Wash thoroughly after handling.
 Wear protective gloves, eye and face protection.
 Avoid breathing mist or spray.
 Use only outdoors or in a well-ventilated area.
 Take off contaminated clothing and wash it before reuse.
 Keep away from heat, sparks, open flames or hot surfaces. No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical attention.

IF ON SKIN: Wash with soap and water.

If skin irritation occurs: Get medical attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Do NOT induce vomiting

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

Storage

Store in a well-ventilated place.
 Store locked up.
 Protect from sunlight
 Store at temperatures not exceeding 122°F (50°C)

Disposal

Dispose of contents in accordance with local, regional and national regulations.

| |
|--|
| SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS |
|--|

| Chemical Name | CAS# | % |
|---|------------|-------|
| Acetone | 67-64-1 | 20-30 |
| Heptane | 142-82-5 | 15-25 |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-65-0 | 8-12 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 8-12 |
| Propane | 74-98-6 | 5-15 |

| | | |
|----------|-----------|------|
| Butane | 106-97-8 | 5-15 |
| Nickel | 7740-02-0 | 5-15 |
| Graphite | 7782-42-5 | 3-7 |
| Aluminum | 7429-90-5 | 1-3 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Immediately flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: In case of contact, wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: Aspiration Hazard. DO NOT induce vomiting. Get immediate medical attention.

Most Important symptoms and effects, both acute and delayed: Causes eye and skin irritation. Product is an aspiration hazard. May enter the lungs during swallowing or vomiting and cause lung damage. Inhalation may cause irritation, headache, dizziness and drowsiness.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention required for ingestion.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use water spray or fog, foam, carbon dioxide or dry chemical.

Special Hazards Arising from the Chemical: Extremely flammable aerosol. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 120°F may cause cans to burst. Combustion may produce carbon dioxide, carbon monoxide.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Protect against bursting cans.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Eliminate all sources of ignition with explosion-proof

equipment. Ventilate area.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Place leaking container into a suitable container and place in a well-ventilated area until the propellant has dissipated. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid breathing vapors and mists. Use with adequate ventilation. Keep away from heat sources. Contents under pressure. Do not puncture or incinerate container. Do not smoke while using.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area at temperatures below 120°F. Do not store in direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|---|--|
| Heptane | 400 ppm TWA ACGIH TLV 500 ppm STEL ACGIH TLV 500 ppm TWA OSHA PEL |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 5 mg/m ³ TWA ACGIH TLV (inhalation) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACGIH TLV (inhalation) |
| Propane | 1000 ppm TWA OSHA PEL |
| Butane | 1000 ppm STEL ACGIH TLV |
| Nickel Powder | 1.5 mg/m ³ TWA ACGIH TLV (inhalable) 1 mg/m ³ TWA OSHA PEL |
| Graphite | 2 mg/m ³ TWA ACGIH TLV respirable 15 mg/m ³ TWA OSHA PEL total dust 5 mg/m ³ TWA OSHA PEL respirable fraction |
| Aluminum, dust or fume | 1 mg/m ³ TWA ACGIH TLV 15 mg/m ³ TWA OSHA PEL total dust 5 mg/m ³ TWA OSHA PEL respirable fraction |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits .

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene

practice.

Skin Protection: Impervious gloves such as nitrile recommended where needed to avoid skin contact .

Eye Protection: Safety goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: Aerosol | Vapor Density (air = 1): >1 |
| Odor: Mild odor | Specific Gravity: 0.7 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Not available | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: -44 to 208 °F | Decomposition Temperature: Not available |
| Flash Point: -141 °F (propellant) | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: No data | Aerosol Fire Protection Level: Level 2 Aerosol (NFPA 30B) |
| VOC Content: 39.81% | Flammability (solid, gas): Propellant if a flammable gas |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Keep away from heat, sparks, flames and other sources of ignition.

Dropping containers may cause bursting.

Incompatible Materials: Avoid strong oxidizing agents and acids.

Hazardous Decomposition Products: Thermal decomposition may produce carbon dioxide, carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: Causes serious eye irritation.

Skin: Contact may cause irritation and drying of the skin.

Inhalation: Mist or vapor can irritate the throat and lungs. High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

Ingestion: If swallowed, this material may cause irritation of the mouth, throat and esophagus. Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea, dizziness, drowsiness and other central nervous system effects. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

Chronic Hazards: None known.

Carcinogen Status:

NTP: Anticipated carcinogen **IARC:** Group 2B **OSHA:** No

Acute Toxicity Values:

Hexane: Oral rat LD50 >5000 mg/kg, inhalation rat LC50 ≥ 29.29 mg/L, dermal rabbit LD50 >2000 mg/kg

Distillates (petroleum), solvent-dewaxed heavy paraffinic: Oral rat LD50 > 5000 mg/kg
Inhalation rat LC50: 2.18 mg/L, Dermal rabbit LD50 > 2000 mg/kg

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg,
Inhalation rat LC50: 1.8 mg/L, dermal rabbit LD50 > 2000 mg/kg

Nickel Powder: Oral rat LD50 > 9000 mg/kg

Graphite: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 2 mg/L

Aluminum Powder: Oral rat LD50 > 15900 mg/kg, inhalation rat LC50 > 0.888 mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Nickel Powder: *Oncorhynchus mykiss* LC50: 15.3 mg/L/96hr, *Pimephales promelas* NOEC: 0.057 mg/L/32days

Graphite: *Danio rerio* LC50 > 100 mg/L/96hr

Distillates (petroleum), hydrotreated heavy naphthenic: *Pimephales promelas* LL50 > 100 mg/L/96hr.

Aluminum Powder: *Lepomis cyanellus* NOEC > 50 mg/L/96hr

Persistence and Degradability: Acetone and hexane are readily biodegradable.

Bioaccumulative Potential: Acetone is not Bioaccumulative. Hexane may bioaccumulate based on a log Kow of 4.66

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations. Do not puncture or incinerate containers. When contents are depleted, continue to depress button until all gas is expelled.

SECTION 14: TRANSPORT INFORMATION

DOT Proper Shipping Name: UN1950, Aerosols, 2.1 Limited Quantity

DOT Technical Name: None

DOT Hazard Class: 2.1

UN Number: UN1950

DOT Labels Required (49CFR172.101): LTD QTY

IMDG Shipping Description: UN1950, Aerosols, 2.1, Limited Quantity,

ID Number: UN1950

Hazard Class: 2.1

Packing Group: None

Labels Required: None

Marking Required: Limited Quantity Mark

Placards Required: Limited Quantity

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product has an RQ of 16,666 lbs based on the RQ for acetone of 5000 lbs. In addition, oil spills are reportable to the National


Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

This product has a Reportable Quantity (RQ) of 500 lbs. based on the RQ for Nickel of 100 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Fire Hazard, Pressure Hazard, Acute Health

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: Aluminum Powder 1-5%, Nickel Powder 20-30%

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: CALIFORNIA PROPOSITION 65:  **WARNING:** This product can expose you to Nickel which is known to the State of California to cause cancer. For more information go to www.P65warnings.ca.gov

| |
|--------------------------------------|
| SECTION 16: OTHER INFORMATION |
|--------------------------------------|

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Safety Data Sheet

Version 1.11
Revision Date 08/01/2016

SDS Number 300000000099
Print Date 03/16/2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Nitrogen

Chemical formula : N₂

Synonyms : Nitrogen, Nitrogen gas, Gaseous Nitrogen, GAN

Product Use Description : General Industrial

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501
GST No. 123600835 RT0001
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate
1-800-224-2724 CSO

Emergency telephone number (24h) : 800-523-9374 USA
+1 610 481 7711 International

2. HAZARDS IDENTIFICATION

GHS classification

Gases under pressure - Compressed gas.
Simple Asphyxiant

GHS label elements

Hazard pictograms/symbols



Signal Word: Warning

Hazard Statements:

H280: Contains gas under pressure; may explode if heated.

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May displace oxygen and cause rapid suffocation.

Precautionary Statements:

Storage : P410+P403:Protect from sunlight. Store in a well-ventilated place.

Hazards not otherwise classified

High pressure gas.
Can cause rapid suffocation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS Number | Concentration (Volume) |
|------------|------------|------------------------|
| Nitrogen | 7727-37-9 | 100 % |

Concentration is nominal. For the exact product composition, please refer to technical specifications.

4. FIRST AID MEASURES

- General advice : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- Eye contact : In case of direct contact with eyes, seek medical advice.
- Skin contact : Adverse effects not expected from this product.
- Ingestion : Ingestion is not considered a potential route of exposure.
- Inhalation : Remove to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. In case of shortness of breath, give oxygen.
- Most important symptoms/effects - acute and delayed : Exposure to oxygen deficient atmosphere may cause the following symptoms: Dizziness. Salivation. Nausea. Vomiting. Loss of mobility/consciousness.

Immediate Medical Attention and Special Treatment

Treatment : If exposed or concerned: Get medical attention/advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : All known extinguishing media can be used.

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- Specific hazards : Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Product is nonflammable and does not support combustion. Move away from container and cool with water from a protected position. Keep containers and surroundings cool with water spray. Most cylinders are designed to vent contents when exposed to elevated temperatures.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment, and Emergency Procedures : Evacuate personnel to safe areas. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Monitor oxygen level. Ventilate the area.
- Environmental precautions : Do not discharge into any place where its accumulation could be dangerous. Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up : Ventilate the area.
- Additional advice : If possible, stop flow of product. Increase ventilation to the release area and monitor oxygen level. If leak is from cylinder or cylinder valve, call the emergency telephone number. If the leak is in the user's system, close the cylinder valve and safely vent the pressure before attempting repairs.

7. HANDLING AND STORAGE

Handling

Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 50°C (122°F). Only experienced and properly instructed persons should handle compressed gases/cryogenic liquids. Before using the product, determine its identity by reading the label. Know and understand the properties and hazards of the product before use. When doubt exists as to the correct handling procedure for a particular gas, contact the supplier. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Use an adjustable strap wrench to remove over-tight or rusted caps. Before connecting the container, check the complete gas system for suitability, particularly for pressure rating and materials. Before connecting the container for use, ensure that back feed from the system into the container is prevented. Ensure the complete gas system is compatible for pressure rating and materials of construction. Ensure the complete gas system has been checked for leaks before use. Employ suitable pressure regulating devices on all containers when the gas is being emitted to systems with lower pressure rating than that of the container. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing a leak to occur. Open valve slowly. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Close valve after each use and when empty. Replace outlet caps or plugs and container caps as soon as container is disconnected from equipment. Do not subject containers to abnormal mechanical shock. Never attempt to lift a cylinder by its valve protection cap or guard. Do not use containers as rollers or supports or for any other purpose than to contain the gas as supplied. Never strike an arc on a

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compressed gas cylinder or make a cylinder a part of an electrical circuit. Do not smoke while handling product or cylinders. Never re-compress a gas or a gas mixture without first consulting the supplier. Never attempt to transfer gases from one cylinder/container to another. Always use backflow protective device in piping. When returning cylinder install valve outlet cap or plug leak tight. Never use direct flame or electrical heating devices to raise the pressure of a container. Containers should not be subjected to temperatures above 50°C (122°F).

Storage

Open/close valve slowly. Close when not in use. Wear Safety Eye Protection. Check Safety Data Sheet before use. Use a back flow preventative device in the piping. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Read and follow the Safety Data Sheet (SDS) before use. Full containers should be stored so that oldest stock is used first. Containers should be stored in a purpose build compound which should be well ventilated, preferably in the open air. Stored containers should be periodically checked for general condition and leakage. Observe all regulations and local requirements regarding storage of containers. Protect containers stored in the open against rusting and extremes of weather. Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent toppling. The container valves should be tightly closed and where appropriate valve outlets should be capped or plugged. Container valve guards or caps should be in place. Keep containers tightly closed in a cool, well-ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Full and empty cylinders should be segregated. Do not allow storage temperature to exceed 50°C (122°F). Return empty containers in a timely manner.

Technical measures/Precautions

Containers should be segregated in the storage area according to the various categories (e.g. flammable, toxic, etc.) and in accordance with local regulations. Keep away from combustible material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Provide natural or mechanical ventilation to prevent oxygen deficient atmospheres below 19.5% oxygen.

Personal protective equipment

- | | |
|---|---|
| Respiratory protection | : Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmosphere. Air purifying respirators will not provide protection. Users of breathing apparatus must be trained. |
| Hand protection | : Wear working gloves when handling gas containers. |
| Eye protection | : Safety glasses recommended when handling cylinders. |
| Skin and body protection | : Safety shoes are recommended when handling cylinders. |
| Special instructions for protection and hygiene | : Ensure adequate ventilation, especially in confined areas. |
| Remarks | : Simple asphyxiant. |

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9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--|
| Appearance | : Compressed gas. Colorless gas |
| Odor | : No odor warning properties. |
| Odor threshold | : No data available. |
| pH | : Not applicable. |
| Melting point/range | : -346 °F (-210 °C) |
| Boiling point/range | : -321 °F (-196 °C) |
| Flash point | : Not applicable. |
| Evaporation rate | : Not applicable. |
| Flammability (solid, gas) | : Refer to product classification in Section 2 |
| Upper/lower explosion/flammability limit | : No data available. |
| Vapor pressure | : Not applicable. |
| Water solubility | : 0.02 g/l |
| Relative vapor density | : 0.97 (air = 1) Lighter or similar to air. |
| Relative density | : No data available. |
| Partition coefficient (n-octanol/water) | : Not applicable. |
| Auto-ignition temperature | : No data available. |
| Decomposition temperature | : No data available. |
| Viscosity | : Not applicable. |
| Molecular Weight | : 28 g/mol |
| Density | : 0.075 lb/ft ³ (0.0012 g/cm ³) at 70 °F (21 °C) Note: (as vapor) |
| Specific Volume | : 13.80 ft ³ /lb (0.8615 m ³ /kg) at 70 °F (21 °C) |

10. STABILITY AND REACTIVITY

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| | |
|---|--|
| Chemical Stability | : Stable under normal conditions. |
| Conditions to avoid | : No data available. |
| Materials to avoid | : No data available. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Possibility of hazardous Reactions/Reactivity | : No data available. |

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Likely routes of exposure

| | |
|--------------------|---|
| Effects on Eye | : In case of direct contact with eyes, seek medical advice. |
| Effects on Skin | : Adverse effects not expected from this product. |
| Inhalation Effects | : In high concentrations may cause asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves. |
| Ingestion Effects | : Ingestion is not considered a potential route of exposure. |
| Symptoms | : Exposure to oxygen deficient atmosphere may cause the following symptoms: Dizziness. Salivation. Nausea. Vomiting. Loss of mobility/consciousness. |

Acute toxicity

| | |
|-----------------------------------|---|
| Acute Oral Toxicity | : No data is available on the product itself. |
| Inhalation | : No data is available on the product itself. |
| Acute Dermal Toxicity | : No data is available on the product itself. |
| Skin corrosion/irritation | : No data available. |
| Serious eye damage/eye irritation | : No data available. |
| Sensitization. | : No data available. |

Chronic toxicity or effects from long term exposures

| | |
|-----------------------|---|
| Carcinogenicity | : No data available. |
| Reproductive toxicity | : No data is available on the product itself. |

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Germ cell mutagenicity : No data is available on the product itself.

Specific target organ systemic toxicity (single exposure) : No data available.

Specific target organ systemic toxicity (repeated exposure) : No data available.

Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

Not applicable.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to other organisms : No data available.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : Because of its high volatility, the product is unlikely to cause ground pollution.

Bioaccumulation : Refer to Section 9 "Partition Coefficient (n-octanol/water)".

Further information

No ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : Contact supplier if guidance is required. Return unused product in original cylinder to supplier.

Contaminated packaging : Return cylinder to supplier.

14. TRANSPORT INFORMATION

DOT

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UN/ID No. : UN1066
Proper shipping name : Nitrogen, compressed
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

IATA

UN/ID No. : UN1066
Proper shipping name : Nitrogen, compressed
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

IMDG

UN/ID No. : UN1066
Proper shipping name : NITROGEN, COMPRESSED
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

TDG

UN/ID No. : UN1066
Proper shipping name : NITROGEN, COMPRESSED
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

Further Information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact customer service.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

| Country | Regulatory list | Notification |
|---------|-----------------|------------------------|
| USA | TSCA | Included on Inventory. |
| EU | EINECS | Included on Inventory. |
| Canada | DSL | Included on Inventory. |

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| | | |
|-------------|-------|------------------------|
| Australia | AICS | Included on Inventory. |
| South Korea | ECL | Included on Inventory. |
| China | SEPA | Included on Inventory. |
| Philippines | PICCS | Included on Inventory. |
| Japan | ENCS | Included on Inventory. |

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
Sudden Release of Pressure Hazard.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

NFPA Rating

Health : 0
Fire : 0
Instability : 0
Special : SA

HMIS Rating

Health : 0
Flammability : 0
Physical hazard : 3

Prepared by : Air Products and Chemicals, Inc. Global EH&S Product Safety Department

Telephone : 1-610-481-4911 Corporate
1-800-224-2724 CSO

Preparation Date : 03/16/2019

For additional information, please visit our Product Stewardship web site at
<http://www.airproducts.com/productstewardship/>



MATERIAL SAFETY DATASHEET
ORGANIC BONDED GRINDING AND CUTTING WHEELS

Flammability Rating

| | |
|---|---|
| 0 | 0 |
| 1 | 0 |

HAZARD RATING
Please rate consistent with NFPA Code

| SECTION 1 NAME AND PRODUCT | |
|--|--|
| MANUFACTURER'S NAME: METABO CORPORATION | CONTACT: Terry Tuerk |
| ADDRESS (STREET, CITY, STATE AND ZIP CODE): 1231 WILSON DRIVE, WEST CHESTER, PA 19380 | EMERGENCY TELEPHONE #: (800) 638-2264 |
| TRADE NAME, COMMON NAME OR SPECIFICATION: ORGANIC BONDED GRINDING WHEELS | APPROVED BY: |
| CHEMICAL FAMILY OR PRODUCT TYPE: ANY GRADE | DATE: Update 8/28/2009 |

| SECTION II COMPOSITION PER 29CFR 1910.1200 (G) (4) | | | | | | | |
|---|-------|------------------|------------|------------|--------------------------------------|--------------------------------------|------------------|
| CHEMICAL NAME | MAX % | COMMON NAME | REG* (Y/N) | CAS # | OSHA PERMISSIVE EXPOSURE LIMIT | ACGIH TLV | CARCINOGEN (Y/N) |
| Alpha-Alumina | 90 | Aluminum Oxide | Y | 1344-28-1 | 10mg/m ³ (Total Dust) | 10mg/m ³ (Total Dust) | N |
| Silicon Carbide | 90 | Silicon Carbide | Y | 409-21-2 | 10mg/m ³ (Total Dust) | 10mg/m ³ (Total Dust) | N |
| Zirconia Alumina | 90 | Zirconia Alumina | Y | 70692-95-4 | 5mg/m ³ (as Zirconium) | 5mg/m ³ (as Zirconium) | N |
| The grinding wheel may be comprised of 1 or more of the above abrasives. The chemicals listed below may be a part of the bond system. | | | | | | | |
| Fluorides (as F) | 3 | Cryolite | Y | 15096-52-3 | 2.5mg/m ³ | 2.5mg/m ³ | N |
| Pyrite FeS ₂ | 2 | Pyrite | Y | 1309-36-0 | **NAIF | 2.0mg/m ³ | N |
| Glass, Fibrous or Dust | 10 | Fiberglass | Y | 65997-17-3 | 15mg/m ³ -- Total Dust | 10mg/m ³ -- Total Dust | N |

| SECTION III PHYSICAL AND CHEMICAL DATA | | |
|--|--|------------------------------|
| BOILING POINT **NAIF | MELTING POINT *NAIF | SPECIFIC GRAVITY 2-4 |
| VAPOR PRESSURE **NAIF | PERCENT VOLATILE BY VOL **NAIF | VAPOR DENSITY **NAIF |
| EVAPORATION RATE **NAIF | SOLUBILITY IN WATER Slight | SOLUBILITY IN ALCOHOL **NAIF |
| SOLUBILITY IN OTHER SOLVENT **NAIF | APPEARANCE AND ODOR SOLID PRODUCT: MAY GIVE OFF ODOR IN USE. | |

| SECTION IV SPECIAL PRECAUTIONS |
|---|
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - NONE OTHER PRECAUTIONS: **NAIF |

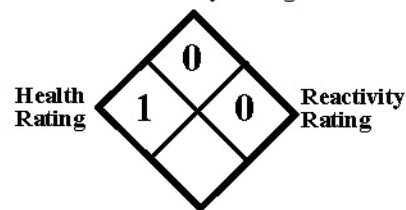
| SECTION V CORROSIVITY AND REACTIVITY DATA |
|--|
| STABILITY: <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE POLMERIZATION: <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR |
| INCOMPATIBILITY (MATERIALS TO AVOID). **NAIF |
| DECOMPOSITION In use, dust and decomposing odors are generated. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products. |
| CONDITIONS TO BE AVOIDED. **NAIF |

* MATERIALS ARE REGULATED BY OSHA 29 CFR 1910.1200, HAZARD COMMUNICATION STANDARD
NAIF = NO APPLICABLE INFORMATION FOUND *N/A = NOT APPLICABLE



MATERIAL SAFETY DATASHEET
ORGANIC BONDED GRINDING AND CUTTING WHEELS

Flammability Rating



HAZARD RATING

Please rate consistent with NFPA Code

SECTION 1 NAME AND PRODUCT

| | |
|--|--|
| MANUFACTURER'S NAME: METABO CORPORATION | CONTACT: Terry Tuerk |
| ADDRESS (STREET, CITY, STATE AND ZIP CODE): 1231 WILSON DRIVE, WEST CHESTER, PA 19380 | EMERGENCY TELEPHONE #: (800) 638-2264 |
| TRADE NAME, COMMON NAME OR SPECIFICATION: ORGANIC BONDED GRINDING WHEELS | APPROVED BY: |
| CHEMICAL FAMILY OR PRODUCT TYPE: ANY GRADE | DATE: Update 8/28/2009 |

SECTION II COMPOSITION PER 29CFR 1910.1200 (G) (4)

| CHEMICAL NAME | MAX % | COMMON NAME | REG* (Y/N) | CAS # | OSHA PERMISSIVE EXPOSURE LIMIT | ACGIH TLV | CARCINOGEN (Y/N) |
|---|-------|------------------|------------|------------|-----------------------------------|-----------------------------------|------------------|
| Alpha-Alumina | 90 | Aluminum Oxide | Y | 1344-28-1 | 10mg/m ³ (Total Dust) | 10mg/m ³ (Total Dust) | N |
| Silicon Carbide | 90 | Silicon Carbide | Y | 409-21-2 | 10mg/m ³ (Total Dust) | 10mg/m ³ (Total Dust) | N |
| Zirconia Alumina | 90 | Zirconia Alumina | Y | 70692-95-4 | 5mg/m ³ (as Zirconium) | 5mg/m ³ (as Zirconium) | N |
| The grinding wheel may be comprised of 1 or more of the above abrasives. The chemicals listed below may be a part of the bond system. | | | | | | | |
| Fluorides (as F) | 3 | Cryolite | Y | 15096-52-3 | 2.5mg/m ³ | 2.5mg/m ³ | N |
| Pyrite FeS ₂ | 2 | Pyrite | Y | 1309-36-0 | **NAIF | 2.0mg/m ³ | N |
| Glass, Fibrous or Dust | 10 | Fiberglass | Y | 65997-17-3 | 15mg/m ³ -- Total Dust | 10mg/m ³ -- Total Dust | N |

SECTION III PHYSICAL AND CHEMICAL DATA

| | | |
|------------------------------------|--|------------------------------|
| BOILING POINT **NAIF | MELTING POINT *NAIF | SPECIFIC GRAVITY 2-4 |
| VAPOR PRESSURE **NAIF | PERCENT VOLATILE BY VOL **NAIF | VAPOR DENSITY **NAIF |
| EVAPORATION RATE **NAIF | SOLUBILITY IN WATER Slight | SOLUBILITY IN ALCOHOL **NAIF |
| SOLUBILITY IN OTHER SOLVENT **NAIF | APPEARANCE AND ODOR SOLID PRODUCT: MAY GIVE OFF ODOR IN USE. | |

SECTION IV SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - NONE
 OTHER PRECAUTIONS: **NAIF

SECTION V CORROSIVITY AND REACTIVITY DATA

| | |
|--|--|
| STABILITY: <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE | POLMERIZATION: <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR |
| INCOMPATIBILITY (MATERIALS TO AVOID). **NAIF | |
| DECOMPOSITION In use, dust and decomposing odors are generated. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products. | |
| CONDITIONS TO BE AVOIDED. **NAIF | |

* MATERIALS ARE REGULATED BY OSHA 29 CFR 1910.1200, HAZARD COMMUNICATION STANDARD
 NAIF = NO APPLICABLE INFORMATION FOUND *N/A = NOT APPLICABLE

Safety Data Sheet



1. Identification

| | | | |
|-----------------------------|---|-------------------------|--|
| Product Name: | OVERAL SSPR 6PK GLOSS ORANGE | Revision Date: | 8/6/2018 |
| Product Identifier: | V2414830 | Supersedes Date: | 6/15/2018 |
| Recommended Use: | Topcoat/Aerosols | | |
| Supplier: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA | Manufacturer: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA |
| | Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625 | | |
| Preparer: | Regulatory Department | | |
| Emergency Telephone: | 24 Hour Hotline: 847-367-7700 | | |

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

38% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

| | | |
|---------------------------------------|------|---|
| Flammable Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| Compressed Gas | H280 | Contains gas under pressure; may explode if heated. |
| Carcinogenicity, category 2 | H351 | Suspected of causing cancer. |
| STOT, single exposure, category 3, NE | H336 | May cause drowsiness or dizziness. |
| Eye Irritation, category 2 | H319 | Causes serious eye irritation. |

Skin Sensitizer, category 1

H317 May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

| | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |
| P201 | Obtain special instructions before use. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local, regional and national regulations. |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P264 | Wash hands thoroughly after handling. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |

P321

For specific treatment see label

GHS SDS PRECAUTIONARY STATEMENTS

P363

Wash contaminated clothing before reuse.

3. Composition / Information On Ingredients**HAZARDOUS SUBSTANCES**

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>Wt. %</u> | <u>GHS Symbols</u> | <u>GHS Statements</u> |
|--|-----------------------|---------------------|---------------------------|------------------------------|
| Acetone | 67-64-1 | 20 | GHS02-GHS07 | H225-319-332-336 |
| Propane | 74-98-6 | 18 | GHS04 | H280 |
| n-Butyl Acetate | 123-86-4 | 8.7 | GHS02-GHS07 | H226-336 |
| n-Butane | 106-97-8 | 8.3 | GHS04 | H280 |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 6.8 | GHS08 | H304 |
| Dimethyl Carbonate | 616-38-6 | 5.8 | GHS02 | H225 |
| 1-Methoxy-2-Propyl Acetate | 108-65-6 | 4.4 | GHS02 | H226 |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 2.9 | GHS02-GHS07 | H226-315-319-332 |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 1.8 | GHS07-GHS08 | H304-332 |
| Propylene Glycol Monobutyl Ether | 5131-66-8 | 1.5 | GHS07 | H302-315-319 |
| Ethylbenzene | 100-41-4 | 0.7 | GHS02-GHS07-GHS08 | H225-304-332-351-373 |
| Titanium Dioxide | 13463-67-7 | 0.5 | Not Available | Not Available |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | 0.2 | GHS07 | H302-312-315-319-332 |
| Methyl ethyl ketoxime | 96-29-7 | 0.1 | GHS05-GHS06-GHS08 | H302-312-317-318-331-351 |

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

| Chemical Name | CAS-No. | Weight % Less Than | ACGIH TLV- TWA | ACGIH TLV- STEL | OSHA PEL- TWA | OSHA PEL- CEILING |
|---|------------|-----------------------|-------------------|--------------------|------------------|----------------------|
| Acetone | 67-64-1 | 20.0 | 250 ppm | 500 ppm | 1000 ppm | N.E. |
| Propane | 74-98-6 | 20.0 | N.E. | N.E. | 1000 ppm | N.E. |
| n-Butyl Acetate | 123-86-4 | 10.0 | 50 ppm | 150 ppm | 150 ppm | N.E. |
| n-Butane | 106-97-8 | 10.0 | N.E. | 1000 ppm | N.E. | N.E. |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 10.0 | N.E. | N.E. | N.E. | N.E. |
| Dimethyl Carbonate | 616-38-6 | 10.0 | N.E. | N.E. | N.E. | N.E. |
| 1-Methoxy-2-Propyl Acetate | 108-65-6 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 5.0 | 100 ppm | 150 ppm | 100 ppm | N.E. |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Propylene Glycol Monobutyl Ether | 5131-66-8 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Ethylbenzene | 100-41-4 | 1.0 | 20 ppm | N.E. | 100 ppm | N.E. |
| Titanium Dioxide | 13463-67-7 | 1.0 | 10 mg/m3 | N.E. | 15 mg/m3 | N.E. |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | 1.0 | 20 ppm | N.E. | 50 ppm | N.E. |
| Methyl ethyl ketoxime | 96-29-7 | 1.0 | 10 ppm | N.E. | N.E. | N.E. |

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

| | | | |
|---------------------------------|---------------------|--|------------|
| Appearance: | Aerosolized Mist | Physical State: | Liquid |
| Odor: | Solvent Like | Odor Threshold: | N.E. |
| Relative Density: | 0.775 | pH: | N.A. |
| Freeze Point, °C: | N.D. | Viscosity: | N.D. |
| Solubility in Water: | Slight | Partition Coefficient, n-octanol/water: | N.D. |
| Decomposition Temp., °C: | N.D. | Explosive Limits, vol%: | 0.9 - 13.0 |
| Boiling Range, °C: | -37 - 537 | Flash Point, °C: | -96 |
| Flammability: | Supports Combustion | Auto-ignition Temp., °C: | N.D. |
| Evaporation Rate: | Faster than Ether | Vapor Pressure: | N.D. |
| Vapor Density: | Heavier than Air | | |

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> |
|----------------|--|------------------|---------------------|-------------------|
| 67-64-1 | Acetone | 5800 mg/kg Rat | >15700 mg/kg Rabbit | 50.1 mg/L Rat |
| 123-86-4 | n-Butyl Acetate | 10768 mg/kg Rat | >17600 mg/kg Rabbit | > 21 mg/L Rat |
| 106-97-8 | n-Butane | N.E. | N.E. | 658 mg/L Rat |
| 64742-49-0 | Naphtha, Petroleum, Hydrotreated Light | >5000 mg/kg Rat | >3160 mg/kg Rabbit | >4951 mg/L Rat |
| 616-38-6 | Dimethyl Carbonate | 13000 mg/kg Rat | >5000 mg/kg Rabbit | 140 mg/L Rat |
| 108-65-6 | 1-Methoxy-2-Propyl Acetate | 8532 mg/kg Rat | >5000 mg/kg Rabbit | N.E. |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 3500 mg/kg Rat | >4350 mg/kg Rabbit | 29.08 mg/L Rat |
| 64742-95-6 | Solvent Naphtha, Light Aromatic | 8400 mg/kg Rat | >2000 mg/kg Rabbit | N.E. |
| 5131-66-8 | Propylene Glycol Monobutyl Ether | 1900 mg/kg Rat | N.E. | N.E. |
| 100-41-4 | Ethylbenzene | 3500 mg/kg Rat | 15400 mg/kg Rabbit | 17.4 mg/L Rat |
| 13463-67-7 | Titanium Dioxide | >10000 mg/kg Rat | 2500 mg/kg | N.E. |
| 111-76-2 | Ethylene Glycol Monobutyl Ether | 470 mg/kg Rat | 1,060 mg/kg Rabbit | 11 mg/L |
| 96-29-7 | Methyl ethyl ketoxime | 930 mg/kg Rat | 1100 mg/kg Rabbit | >4.8 mg/L Rat |

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems. Do not incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

14. Transport Information

| | <u>Domestic (USDOT)</u> | <u>International (IMDG)</u> | <u>Air (IATA)</u> | <u>TDG (Canada)</u> |
|------------------------------|--------------------------------------|-----------------------------|-------------------|--------------------------------------|
| UN Number: | N.A. | 1950 | 1950 | N.A. |
| Proper Shipping Name: | Paint Products in Limited Quantities | Aerosols | Aerosols | Paint Products in Limited Quantities |
| Hazard Class: | N.A. | 2.1 | 2.1 | N.A. |
| Packing Group: | N.A. | N.A. | N.A. | N.A. |
| Limited Quantity: | Yes | Yes | Yes | Yes |

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Respiratory or Skin Sensitization, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name**CAS-No.**

| | |
|---------------------------------|-----------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 |
| Ethylbenzene | 100-41-4 |
| Ethylene Glycol Monobutyl Ether | 111-76-2 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information**HMIS RATINGS**

Health: 2* Flammability: 4 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 4 Instability: 0

Maximum Incremental Reactivity 0.94

SDS REVISION DATE: 8/6/2018

REASON FOR REVISION: Substance Regulatory CAS Number Changed
 Substance Hazardous Flag Changed
 Substance Hazard Threshold % Changed
 Substance and/or Product Properties Changed in Section(s):
 08 - Exposure Controls/Personal Protection
 15 - Regulatory Information
 Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.


SAFETY DATA SHEET

Oxygen

Section 1. Identification

| | |
|--------------------------------------|--|
| GHS product identifier | : Oxygen |
| Chemical name | : oxygen |
| Other means of identification | : Molecular oxygen; Oxygen molecule; Pure oxygen; O ₂ ; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO) |
| Product type | : Gas. |
| Product use | : Synthetic/Analytical chemistry. |
| Synonym | : Molecular oxygen; Oxygen molecule; Pure oxygen; O ₂ ; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO) |
| SDS # | : 001043 |
| Supplier's details | : Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253 |
| 24-hour telephone | : 1-866-734-3438 |

Section 2. Hazards identification

| | |
|---|---|
| OSHA/HCS status | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| Classification of the substance or mixture | : OXIDIZING GASES - Category 1 GASES UNDER PRESSURE - Compressed gas |
| GHS label elements | |
| Hazard pictograms | :  |
| Signal word | : Danger |
| Hazard statements | : May cause or intensify fire; oxidizer. Contains gas under pressure; may explode if heated. |
| Precautionary statements | |
| General | : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Open valve slowly. Use only with equipment cleaned for Oxygen service. |
| Prevention | : Keep away from clothing and other combustible materials. Keep reduction valves, valves and fittings free from oil and grease. |
| Response | : In case of fire: Stop leak if safe to do so. |
| Storage | : Protect from sunlight. Store in a well-ventilated place. |
| Disposal | : Not applicable. |
| Hazards not otherwise classified | : None known. |

Section 3. Composition/information on ingredients

- Substance/mixture** : Substance
- Chemical name** : oxygen
- Other means of identification** : Molecular oxygen; Oxygen molecule; Pure oxygen; O2; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO)
- Product code** : 001043

CAS number/other identifiers

- CAS number** : 7782-44-7

| Ingredient name | % | CAS number |
|-----------------|-----|------------|
| oxygen | 100 | 7782-44-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : As this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Frostbite** : Try to warm up the frozen tissues and seek medical attention.
- Ingestion** : As this product is a gas, refer to the inhalation section.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Contains gas under pressure. Oxidizing material. This material increases the risk of fire and may aid combustion. Contact with combustible material may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

- Hazardous thermal decomposition products** : No specific data.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.
- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid breathing gas. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous. Keep away from clothing, incompatible materials and combustible materials. Keep reduction valves free from grease and oil.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Separate from reducing agents and combustible materials. Store away from grease and oil. Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|-----------------|
| oxygen | None. |

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas. [Compressed gas.]
- Color** : Colorless. Blue.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -218.4°C (-361.1°F)
- Boiling point** : -183°C (-297.4°F)
- Critical temperature** : -118.15°C (-180.7°F)
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Extremely flammable in the presence of the following materials or conditions: reducing materials, combustible materials and organic materials.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : 1.1 (Air = 1)
- Specific Volume (ft³/lb)** : 12.0482
- Gas Density (lb/ft³)** : 0.083
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : 0.65
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Molecular weight** : 32 g/mole

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following:
contact with combustible materials
Reactions may include the following:
risk of causing fire

Section 10. Stability and reactivity

- Conditions to avoid** : No specific data.
- Incompatible materials** : Highly reactive or incompatible with the following materials:
combustible materials
reducing materials
grease
oil
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.
- Ingestion** : As this product is a gas, refer to the inhalation section.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| oxygen | 0.65 | - | low |

Mobility in soil










- Soil/water partition coefficient (K_{oc})** : Not available.

- Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT | TDG | Mexico | IMDG | IATA |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1072 | UN1072 | UN1072 | UN1072 | UN1072 |
| UN proper shipping name | OXYGEN, COMPRESSED | OXYGEN, COMPRESSED | OXYGEN, COMPRESSED | OXYGEN, COMPRESSED | OXYGEN, COMPRESSED |
| Transport hazard class(es) | 2.2 (5.1)   | 2.2  | 2.2 (5.1)   | 2.2 (5.1)   | 2.2 (5.1)   |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |

“Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product.”

Additional information

- DOT Classification** : **Limited quantity** Yes.
Quantity limitation Passenger aircraft/rail: 75 kg. Cargo aircraft: 150 kg.
Special provisions A52
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2), 2.23-2.25 (Class 5).
Explosive Limit and Limited Quantity Index 0.125
ERAP Index 3000
Passenger Carrying Vessel Index 50
Passenger Carrying Road or Rail Index 75
Special provisions 42
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Cargo Aircraft Only: 150 kg.

Special precautions for user : **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

New York : This material is not listed.

New Jersey : This material is listed.

Pennsylvania : This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : This material is listed or exempted.

Canada : This material is listed or exempted.

China : This material is listed or exempted.

Europe : This material is listed or exempted.

Japan : **Japan inventory (ENCS):** Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : This material is listed or exempted.

Philippines : This material is listed or exempted.

Section 15. Regulatory information

- Republic of Korea** : This material is listed or exempted.
- Taiwan** : This material is listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : This material is active or exempted.
- Viet Nam** : This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | / | 0 |
| Flammability | | 0 |
| Physical hazards | | 3 |
| | | |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

| Classification | Justification |
|---|---|
| OXIDIZING GASES - Category 1 GASES UNDER PRESSURE - Compressed gas | Expert judgment According to package |

History

- Date of printing** : 9/22/2020
- Date of issue/Date of revision** : 9/22/2020
- Date of previous issue** : 2/3/2018
- Version** : 1

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- : BCF = Bioconcentration Factor
- : GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- : IATA = International Air Transport Association
- : IBC = Intermediate Bulk Container
- : IMDG = International Maritime Dangerous Goods
- : LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References

: Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Oxygen

Chemical formula : O₂

Synonyms : Oxygen, Oxygen gas, Gaseous Oxygen, GOX

Product Use Description : General Industrial.

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501
GST No. 123600835 RT0001
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate
1-800-224-2724 CSO

Emergency telephone number (24h) : 800-523-9374 USA
+1 610 481 7711 International

2. HAZARDS IDENTIFICATION

GHS classification

Oxidizing gases - Category 1
Gases under pressure - Compressed gas.

GHS label elements

Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:

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H270:May cause or intensify fire; oxidiser.

H280:Contains gas under pressure; may explode if heated.

Precautionary Statements:

- Prevention : P220:Keep away from clothing and other combustible materials.
P244:Keep valves and fittings free from oil and grease.
- Response : P370+P376 :In case of fire: Stop leak if safe to do so.
- Storage : P410+P403:Protect from sunlight. Store in a well-ventilated place.

Other hazards not contributing to the classification

High pressure, oxidizing gas.

Vigorously accelerates combustion.

Keep oil, grease, and combustibles away.

May react violently with combustible materials.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS Number | Concentration (Volume) |
|------------|------------|------------------------|
| Oxygen | 7782-44-7 | 100 % |

Concentration is nominal. For the exact product composition, please refer to technical specifications.

4. FIRST AID MEASURES

- General advice : Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- Eye contact : IF exposed or concerned: Get medical advice/attention.
- Skin contact : Adverse effects not expected from this product. IF exposed or concerned: Get medical advice/attention.
- Ingestion : Ingestion is not considered a potential route of exposure.
- Inhalation : Consult a physician after significant exposure. Move to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Most important symptoms/effects - acute and delayed : If oxygen is administered to persons with chronic obstructive pulmonary disease, raising the oxygen concentration in the blood depresses their breathing and raises their retained carbon dioxide to a dangerous level.

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Immediate Medical Attention and Special Treatment

Treatment : If exposed or concerned: Get medical attention/advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : The product itself does not burn.
Use extinguishing media appropriate for surrounding fire.
- Specific hazards : Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Oxidant. Strongly supports combustion. May react violently with combustible materials. Some materials which are noncombustible in air may burn in the presence of an oxidizer. Move away from container and cool with water from a protected position. Keep adjacent cylinders cool by spraying with large amounts of water until the fire burns itself out. If possible, stop flow of product. Most cylinders are designed to vent contents when exposed to elevated temperatures.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Some materials that are noncombustible in air will burn in the presence of an oxygen enriched atmosphere (greater than 23.5%). Fire resistant clothing may burn and offer no protection in oxygen rich atmospheres.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment, and Emergency Procedures : Clothing exposed to high concentrations may retain oxygen 30 minutes or longer and become a potential fire hazard. Stay away from ignition sources. Evacuate personnel to safe areas. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ventilate the area.
- Environmental precautions : Do not discharge into any place where its accumulation could be dangerous. Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up : Ventilate the area.
- Additional advice : If possible, stop flow of product. Increase ventilation to the release area and monitor concentrations. If leak is from cylinder or cylinder valve, call the emergency telephone number. If the leak is in the user's system, close the cylinder valve, safely vent the pressure, and purge with an inert gas before attempting repairs.

7. HANDLING AND STORAGE

Handling

All gauges, valves, regulators, piping and equipment to be used in oxygen service must be cleaned for oxygen service. Oxygen is not to be used as a substitute for compressed air. Never use an oxygen jet for cleaning purposes of any sort, especially clothing, as it increases the likelihood of an engulfing fire. Only experienced and properly instructed persons should handle compressed gases/cryogenic liquids. Protect cylinders from physical

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damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 50°C (122°F). Before using the product, determine its identity by reading the label. Know and understand the properties and hazards of the product before use. When doubt exists as to the correct handling procedure for a particular gas, contact the supplier. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Use an adjustable strap wrench to remove over-tight or rusted caps. Before connecting the container, check the complete gas system for suitability, particularly for pressure rating and materials. Before connecting the container for use, ensure that back feed from the system into the container is prevented. Ensure the complete gas system is compatible for pressure rating and materials of construction. Ensure the complete gas system has been checked for leaks before use. Employ suitable pressure regulating devices on all containers when the gas is being emitted to systems with lower pressure rating than that of the container. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing a leak to occur. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Do not use containers as rollers or supports or for any other purpose than to contain the gas as supplied. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. Do not smoke while handling product or cylinders. Never re-compress a gas or a gas mixture without first consulting the supplier. Never attempt to transfer gases from one cylinder/container to another. Always use backflow protective device in piping. When returning cylinder install valve outlet cap or plug leak tight. Never permit oil, grease, or other readily combustible substances to come into contact with valves or containers containing oxygen or other oxidants. Do not use rapidly opening valves (e.g. ball valves). Open valve slowly to avoid pressure shock. Never pressurize the entire system at once. Use only with equipment cleaned for oxygen service and rated for cylinder pressure. Never use direct flame or electrical heating devices to raise the pressure of a container. Containers should not be subjected to temperatures above 50°C (122°F).

Storage

Open/close valve slowly. Close when not in use. Wear Safety Eye Protection. Check Safety Data Sheet before use. Do not change or force fit connections. Always keep container in upright position. Use a back flow preventative device in the piping. Use only with equipment cleaned for oxygen service and rated for cylinder pressure. Use only with equipment of compatible materials of construction, rated for cylinder pressure. Containers should be stored in a purpose build compound which should be well ventilated, preferably in the open air. Full containers should be stored so that oldest stock is used first. Stored containers should be periodically checked for general condition and leakage. Observe all regulations and local requirements regarding storage of containers. Protect containers stored in the open against rusting and extremes of weather. Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent toppling. The container valves should be tightly closed and where appropriate valve outlets should be capped or plugged. Container valve guards or caps should be in place. Keep containers tightly closed in a cool, well-ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Full and empty cylinders should be segregated. Do not allow storage temperature to exceed 50°C (122°F). Display "No Smoking or Open Flames" signs in the storage areas. Return empty containers in a timely manner. Flammable storage areas should be separated from oxygen and other oxidizers by a minimum distance of 20 ft. (6.1 m.) or by a barrier of non-combustible material at least 5 ft. (1.5 m.) high, having a fire resistance rating of at least 1/2 hour.

Technical measures/Precautions

Containers should be segregated in the storage area according to the various categories (e.g. flammable, toxic, etc.) and in accordance with local regulations.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Ensure adequate ventilation.

Personal protective equipment

- Respiratory protection : Users of breathing apparatus must be trained.
- Hand protection : Wear work gloves when handling gas containers. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Safety glasses recommended when handling cylinders.
- Skin and body protection : Safety shoes are recommended when handling cylinders.
- Special instructions for protection and hygiene : Ensure adequate ventilation, especially in confined areas. Gloves must be clean and free of oil and grease.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Compressed gas. Colorless gas
- Odor : No odor warning properties.
- Odor threshold : No data available.
- pH : Not applicable.
- Melting point/range : -362 °F (-219 °C)
- Boiling point/range : -297 °F (-183 °C)
- Flash point : Not applicable.
- Evaporation rate : Not applicable.
- Flammability (solid, gas) : Refer to product classification in Section 2
- Upper/lower explosion/flammability limit : No data available.
- Vapor pressure : Not applicable.

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| | |
|--|--|
| Water solubility | : 0.039 g/l |
| Relative vapor density | : 1.105 (air = 1) Heavier than air. |
| Relative density | : 1.1 (water = 1) |
| Partition coefficient: n-octanol/water [log Kow] | : Not applicable. |
| Auto-ignition temperature | : No data available. |
| Decomposition temperature | : No data available. |
| Viscosity | : Not applicable. |
| Molecular Weight | : 32 g/mol |
| Density | : 0.081 lb/ft ³ (0.0013 g/cm ³) at 70 °F (21 °C) Note: (as vapor) |
| Specific Volume | : 12.08 ft ³ /lb (0.7540 m ³ /kg) at 70 °F (21 °C) |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Chemical Stability | : Stable under normal conditions. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Materials to avoid | : Flammable materials. Organic materials. Avoid oil, grease and all other combustible materials. |
| Hazardous decomposition products | : No data available. |
| Possibility of hazardous Reactions/Reactivity | : Violently oxidises organic material. |

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Likely routes of exposure

| | |
|--------------------|---|
| Effects on Eye | : In case of direct contact with eyes, seek medical advice. |
| Effects on Skin | : Adverse effects not expected from this product. |
| Inhalation Effects | : Breathing 75% or more oxygen at atmospheric pressure for more than a few hours may cause nasal stuffiness, cough, sore throat, chest pain and breathing difficulty. Breathing pure oxygen under pressure may cause lung damage and also central nervous system effects. |

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Ingestion Effects : Ingestion is not considered a potential route of exposure.

Symptoms : No data available.

Acute toxicity

Acute Oral Toxicity : No data is available on the product itself.

Inhalation : No data is available on the product itself.

Acute Dermal Toxicity : No data is available on the product itself.

Skin corrosion/irritation : No data available.

Serious eye damage/eye irritation : No data available.

Sensitization. : No data available.

Chronic toxicity or effects from long term exposures

Carcinogenicity : No data available.

Reproductive toxicity : No data is available on the product itself.

Germ cell mutagenicity : No data is available on the product itself.

Specific target organ systemic toxicity (single exposure) : No data available.

Specific target organ systemic toxicity (repeated exposure) : No data available.

Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

If oxygen is administered to persons with chronic obstructive pulmonary disease, raising the oxygen concentration in the blood depresses their breathing and raises their retained carbon dioxide to a dangerous level.

Premature infants exposed to high oxygen concentrations may suffer delayed retinal damage that can progress to retinal detachment and blindness. Retinal damage may also occur in adults exposed to 100% oxygen for extended periods (24 to 48 hr). At two or more atmospheres central nervous system (CNS) toxicity occurs. Symptoms include nausea, vomiting, dizziness or vertigo, muscle twitching, vision changes and loss of consciousness and generalized seizures. At three atmospheres, CNS toxicity occurs in less than two hours and at six atmospheres in only a few minutes.

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12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to other organisms : No data available.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : Because of its high volatility, the product is unlikely to cause ground pollution.

Bioaccumulation : Refer to Section 9 "Partition Coefficient (n-octanol/water)".

Further information

No ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : Return unused product in original cylinder to supplier. Contact supplier if guidance is required.

Contaminated packaging : Return cylinder to supplier.

14. TRANSPORT INFORMATION

DOT

UN/ID No. : UN1072
Proper shipping name : Oxygen, compressed
Class or Division : 2.2
Label(s) : 2.2 (5.1)
Marine Pollutant : No

IATA

UN/ID No. : UN1072
Proper shipping name : Oxygen, compressed
Class or Division : 2.2
Label(s) : 2.2 (5.1)
Marine Pollutant : No

IMDG

UN/ID No. : UN1072
Proper shipping name : OXYGEN, COMPRESSED
Class or Division : 2.2

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Label(s) : 2.2 (5.1)
Marine Pollutant : No

TDG

UN/ID No. : UN1072
Proper shipping name : OXYGEN, COMPRESSED
Class or Division : 2.2
Label(s) : 2.2 (5.1)
Marine Pollutant : No

Further Information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact customer service.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

| Country | Regulatory list | Notification |
|-------------|-----------------|------------------------|
| USA | TSCA | Included on Inventory. |
| EU | EINECS | Included on Inventory. |
| Canada | DSL | Included on Inventory. |
| Australia | AICS | Included on Inventory. |
| South Korea | ECL | Included on Inventory. |
| China | SEPA | Included on Inventory. |
| Philippines | PICCS | Included on Inventory. |
| Japan | ENCS | Included on Inventory. |

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
Fire Hazard. Sudden Release of Pressure Hazard.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

NFPA Rating

9/10

Air Products and Chemicals, Inc

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Health : 0
Fire : 0
Instability : 0
Special : OX

HMIS Rating

Health : 0
Flammability : 0
Physical hazard : 3

Prepared by : Air Products and Chemicals, Inc. Global EH&S Department

Telephone : 1-610-481-4911 Corporate
1-800-224-2724 CSO

Preparation Date : 11/19/2021

For additional information, please visit our Product Stewardship web site at
<http://www.airproducts.com/productstewardship/>



PB Penetrating Catalyst

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom2012

Date of issue: 9/24/2019

Revision date: 9/24/2019

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product name : PB Penetrating Catalyst
Product code : 16-PB, 8-PB, 8-PBS, PB-TS, 20-PB, 26-PB, 16-PB-DS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Penetrant

1.3. Details of the supplier of the safety datasheet

Manufacturer

The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125 - USA
T (216) 901-5800 - F (216) 901-5801
www.blastercorp.com

1.4. Emergency telephone number

Emergency number : ChemTel 800-255-3924

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Aerosol 2
Gases under Pressure (Dissolved gas)
Asp. Tox. 1

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : Flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways.
Precautionary statements (GHS-US) : Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Store locked up. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Dispose of contents/container in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

3.2. Mixtures

| Name | Product identifier | % |
|---|---------------------|---------|
| Petroleum distillates, hydrotreated light | (CAS No) 64742-47-8 | 50 - 60 |
| Solvent naphtha, petroleum, heavy aromatic | (CAS No) 64742-94-5 | 20 - 30 |
| Distillates, petroleum, hydrotreated heavy naphthenic | (CAS No) 64742-52-5 | 20 - 30 |
| Carbon dioxide | (CAS No) 124-38-9 | 1 - 4 |

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures after inhalation | : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. |
| First-aid measures after skin contact | : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. |
| First-aid measures after eye contact | : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Direct contact with the eyes is likely to be irritating. |
| First-aid measures after ingestion | : IF SWALLOWED: immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|--------------------------------------|--|
| Symptoms/injuries after inhalation | : May cause respiratory tract irritation. |
| Symptoms/injuries after skin contact | : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. |
| Symptoms/injuries after eye contact | : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. |
| Symptoms/injuries after ingestion | : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting. |

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | : Carbon dioxide, dry chemical, halons or foam. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------------|---|
| Fire hazard | : Flammable aerosol. Products of combustion may include, and are not limited to: oxides of carbon and oxides of nitrogen. |
| Explosion hazard | : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. |
| Reactivity | : No dangerous reaction known under conditions of normal use. |

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Firefighting instructions | : DO NOT fight fire when fire reaches explosives. Evacuate area. Exercise caution when fighting any chemical fire. |
| Protection during firefighting | : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Use water spray to keep fire-exposed containers cool. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------|--|
| General measures | : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges. |
|------------------|--|

6.1.1. For non-emergency personnel

| | |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
|----------------------|--|

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Eliminate sources of ignition. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not spray on an open flame or other ignition source. Keep away from sources of ignition - No smoking. Use non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas, fumes, vapour or spray. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Do not pierce or burn, even after use.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep locked up and out of reach of children. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store away from direct sunlight or other heat sources. Keep in fireproof place.

Storage area : Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Petroleum distillates, hydrotreated light (64742-47-8) | | |
|--|-------------------------------------|------------------------|
| Not applicable | | |
| Solvent naphtha, petroleum, heavy aromatic (64742-94-5) | | |
| Not applicable | | |
| Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5) | | |
| Not applicable | | |
| Carbon dioxide (124-38-9) | | |
| ACGIH | ACGIH TWA (ppm) | 5000 ppm |
| ACGIH | ACGIH STEL (ppm) | 30000 ppm |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 9000 mg/m ³ |
| OSHA | OSHA PEL (TWA) (ppm) | 5000 ppm |

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Safety glasses or goggles are recommended when using product.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|----------------------|
| Physical state | : Liquid |
| Appearance | : Clear. Aerosol. |
| Colour | : Orange |
| Odour | : Characteristic |
| Odour threshold | : No data available |
| pH | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 356 °F (180 °C) |
| Flash point | : > 141 °F (> 61 °C) |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : Flammable aerosol. |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 0.9 |
| Solubility | : No data available |
| Partition coefficient n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |

9.2. Other information

| | |
|--------------------|-------------|
| Heat of Combustion | : 45.8 kJ/g |
| Flame Projection | : 0 inches |
| Flashback | : None |

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. Flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Sources of ignition. Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon and oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

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| PB Penetrating Catalyst | |
|--|---|
| LD50 oral rat | > 2000 mg/kg (Calculated Acute Toxicity Estimate) |
| LD50 dermal rabbit | > 2000 mg/kg (Calculated Acute Toxicity Estimate) |
| LC50 inhalation rat | > 5 mg/l/4h (Calculated Acute Toxicity Estimate) |
| Petroleum distillates, hydrotreated light (64742-47-8) | |
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | > 5.2 mg/l/4h |
| Solvent naphtha, petroleum, heavy aromatic (64742-94-5) | |
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2 ml/kg |
| LC50 inhalation rat | > 590 mg/m ³ (Exposure time: 4 h) |

| | |
|--|--|
| Skin corrosion/irritation | : Notclassified. |
| Serious eye damage/irritation | : Notclassified. |
| Respiratory or skin sensitisation | : Notclassified. |
| Germ cell mutagenicity | : Notclassified. |
| Carcinogenicity | : Notclassified. |
| Reproductive toxicity | : Not classified. |
| Specific target organ toxicity (single exposure) | : Notclassified. |
| Specific target organ toxicity (repeated exposure) | : Not classified. |
| Aspiration hazard | : May be fatal if swallowed and enters airways. |
| Symptoms/injuries after inhalation | : May cause respiratory tract irritation. |
| Symptoms/injuries after skin contact | : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. |
| Symptoms/injuries after eye contact | : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. |
| Symptoms/injuries after ingestion | : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting. |
| Other information | : Likely routes of exposure: ingestion, inhalation, skin and eye. |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

| Petroleum distillates, hydrotreated light (64742-47-8) | |
|---|---|
| LC50 fish 1 | 45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| LC50 fish 2 | 2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |
| Solvent naphtha, petroleum, heavy aromatic (64742-94-5) | |
| LC50 fish 1 | 19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| EC50 Daphnia 1 | 0.95 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| LC50 fish 2 | 2.34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss) |
| Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5) | |
| LC50 fish 1 | > 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss) |
| EC50 Daphnia 1 | > 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna) |

12.2. Persistence and degradability

| PB Penetrating Catalyst | |
|--------------------------------|------------------|
| Persistence and degradability | Not established. |

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12.3. Bioaccumulative potential

| PB Penetrating Catalyst | |
|---|----------------------|
| Bioaccumulative potential | Not established. |
| Petroleum distillates, hydrotreated light (64742-47-8) | |
| BCF fish 1 | 61 - 159 |
| Solvent naphtha, petroleum, heavy aromatic (64742-94-5) | |
| BCF fish 1 | 61 - 159 |
| Partition coefficient n-octanol/water | 2.9 - 6.1 |
| Carbon dioxide (124-38-9) | |
| BCF fish 1 | (no bioaccumulation) |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

DOT, IATA & IMO

UN-No. : UN1950
Proper Shipping Name : AEROSOLS, flammable, limited quantities

Class : 2.1

Hazard labels :



Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of

15.3. California to cause cancer, developmental and/or reproductive harm

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| Naphthalene (91-20-3) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| Yes | No | No | No | 5.8 µg/day |

| Carbon dioxide (124-38-9) |
|--|
| U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

Date of issue : 9/24/2019
 Revision date : 9/24/2019
 Other information : None.

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SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: PB Penetrating Catalyst (Aerosol)
Product Code: 16-PB, 8-PB, 8-PBS, PBTS, 20-PB, 16-PB-IND

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Lubricant/Penetrant

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125 – USA
Telephone Number: T (216) 901-5800
F (216) 901-5801

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC: (800) 424-9300
Date of Preparation: Feb. 3, 2016 **Version #:** 1.0

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

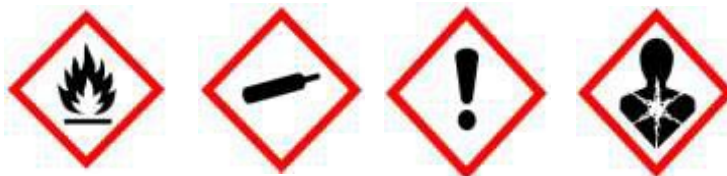
Hazard class

Flammable Aerosol 2
Gases Under Pressure (Dissolved Gas)
Serious Eye Irritation 2A
Carcinogenicity 2
Aspiration Hazard 1

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Hazard Pictogram:



Signal Word: Danger
Hazard Statement: Flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. Suspected of causing cancer. May be fatal if swallowed and enters airways.
Prevention: Keep away from heat/sparks/open flames/hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.



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Response: If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

8 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

| Ingredient | UN # | H / F / R / * | CAS No | Wt. % |
|--|-------------------|---------------|------------|-----------|
| Distillates (petroleum), hydrotreated light | Not available | Not available | 64742-47-8 | 50 - 60 |
| Solvent naphtha (petroleum), heavy aromatic | UN1270 | Not available | 64742-94-5 | 20 - 30 |
| Distillates (petroleum), hydrotreated heavy naphthenic | Not available | Not available | 64742-52-5 | 20 - 30 |
| Carbon dioxide | UN1013 | 1/0/0 | 124-38-9 | 1 - 5 |
| Naphthalene | UN1334/ UN2304 | 2/2/0 | 91-20-3 | 2 - 3 |
| Dinonylphenol, ethoxylated, phosphated | Not available | Not available | 39464-64-7 | 0.5 - 1.5 |

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000



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Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

- Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- Inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Skin:** May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Inhalation:** May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.
- Ingestion:** May cause respiratory tract irritation.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

- Note to Physicians:** Symptoms may not appear immediately.
- Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- Suitable Extinguishing Media:** Dry chemical, carbon dioxide or foam.
- Unsuitable Extinguishing Media:** Water may be ineffective for extinguishing fire.

5.2 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

- Products of Combustion:** May include, and are not limited to: oxides of carbon, hydrocarbons.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. Do not use a solid water stream as it may scatter and spread fire. Containers may explode when heated.



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Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Scoop up material and place in a disposal container. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Provide ventilation.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Keep away from sources of ignition. - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. When using do not eat, drink or smoke. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Pressurized container: Do not pierce or burn, even after use. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep locked up and out of reach of children. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in dry, cool, well-ventilated area. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

| Ingredient | Occupational Exposure Limits | |
|--|-------------------------------------|----------------------------|
| | OSHA-PEL | ACGIH-TLV |
| Distillates (petroleum), hydrotreated light | 100 ppm | 200 mg/m ³ |
| Solvent naphtha (petroleum), heavy aromatic | Not available. | Not available. |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ (mist) | 5 mg/m ³ (mist) |
| Carbon dioxide | 5000 ppm; 9000 mg/m ³ | 5000 ppm |
| Naphthalene | 10 ppm; 50 mg/m ³ | 10 ppm |
| Dinonylphenol, ethoxylated, phosphated | Not available. | Not available. |



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8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Safety glasses with side-shields.

Skin Protection:

Hand Protection: Wear chemically resistant protective gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health and Safety Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--------------------------|
| Appearance: | Viscous / Oily. |
| Color: | Orange. |
| Odor: | Heavy aromatic. |
| Odor Threshold: | Not available. |
| Physical State: | Gas/pressurized liquid. |
| pH: | Not available. |
| Melting Point/Freezing Point: | Not available. |
| Initial Boiling Point and Boiling Range: | 177.8 °C (352 °F) |
| Flash Point: | 65.6 °C (150 °F) |
| Evaporation Rate: | <1 (n-butyl acetate = 1) |
| Flammability: | Flammable. |
| Lower Flammability/Explosive Limit: | Not available. |
| Upper Flammability/Explosive Limit: | Not available. |
| Vapor Pressure: | Not available. |
| Vapor Density: | >1 (Air = 1) |
| Relative Density/Specific Gravity: | 0.91 (Water = 1) |
| Solubility: | Negligible. |



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| | |
|--|----------------|
| Partition coefficient: n-octanol/water: | Not available. |
| Auto-ignition Temperature: | Not available. |
| Decomposition Temperature: | Not available. |
| Viscosity: | Not available. |
| Oxidizing Properties: | Not available. |
| Explosive Properties: | Not available. |
| VOC Content: | < 25% |
| Flame Projection: | 0 cm |
| Heat of Combustion: | 45.8 kJ/g |

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions. Flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials. Sources of ignition. Excessive water.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents. Strong reducing agents. Moisture.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon, hydrocarbons.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Ingestion: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.



SAFETY DATA SHEET

Acute Toxicity:

| Ingredient | IDLH | LC50 | LD50 |
|--|----------------|----------------------------------|---|
| Distillates (petroleum), hydrotreated light | Not available. | Inhalation >5.2 mg/L 4h rat | Oral >5000 mg/kg, rat; Dermal >2000 mg/kg, rabbit |
| Solvent naphtha (petroleum), heavy aromatic | Not available. | Inhalation >5.28 mg/L 4h, rat | Oral >5000 mg/kg, rat; Dermal >2000 mg/kg, rabbit |
| Distillates (petroleum), hydrotreated heavy naphthenic | Not available. | Inhalation >5.0 mg/L 4h, rat | Oral >5000 mg/kg, rat; Dermal >5000 mg/kg, rabbit |
| Carbon dioxide | 40000 ppm | Not available. | Not available. |
| Naphthalene | 250 ppm | Not available. | Oral 490 mg/kg, rat; Dermal >2500 mg/kg, rat; Dermal >20 g/kg, rabbit |
| Dinonylphenol, ethoxylated, phosphated | Not available. | Not available. | Not available. |

| Calculated overall Chemical Acute Toxicity Values | | |
|---|-------------------|----------------------|
| LC50 (inhalation) | LD50 (oral) | LD50 (dermal) |
| > 5 mg/L 4h, rat | > 2000 mg/kg, rat | > 2000 mg/kg, rabbit |

| Ingredient | Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)* |
|--|---|
| Distillates (petroleum), hydrotreated light | Not listed. |
| Solvent naphtha (petroleum), heavy aromatic | Not listed. |
| Distillates (petroleum), hydrotreated heavy naphthenic | Not listed. |
| Carbon dioxide | Not listed. |
| Naphthalene | G-A4, I-2B, N-2, CP65 |
| Dinonylphenol, ethoxylated, phosphated | Not listed. |

* See Section 15 for more information.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

- Skin Corrosion/Irritation:** Based on available data, the classification criteria are not met.
- Serious Eye Damage/Irritation:** Causes serious eye irritation.
- Respiratory Sensitization:** Based on available data, the classification criteria are not met.
- Skin Sensitization:** Based on available data, the classification criteria are not met.
- STOT-Single Exposure:** Based on available data, the classification criteria are not met.
- Chronic Health Effects:**
 - Carcinogenicity:** Possible carcinogen.
 - Germ Cell Mutagenicity:** Based on available data, the classification criteria are not met.
- Reproductive Toxicity:**
 - Developmental:** Based on available data, the classification criteria are not met.
 - Fertility:** Based on available data, the classification criteria are not met.
- STOT-Repeated Exposure:** Based on available data, the classification criteria are not met.
- Aspiration Hazard:** May be fatal if swallowed and enters airways.





SAFETY DATA SHEET

Other Information: Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Other disposal recommendations: Flammable vapours may accumulate in the container. Do not incinerate empty containers.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

| | |
|------------|--------------------------|
| DOT | NOM-004-SCT2-1994 |
| UN1950 | UN1950 |

14.2 UN PROPER SHIPPING NAME

| | |
|---|---|
| DOT | NOM-004-SCT2-1994 |
| AEROSOLS, flammable, limited quantities | AEROSOLS, flammable, limited quantities |

14.3 TRANSPORT HAZARD CLASS (ES)

| | |
|------------|--------------------------|
| DOT | NOM-004-SCT2-1994 |
| 2.1 | 2.1 |

14.4 PACKING GROUP

| | |
|-----------------|--------------------------|
| DOT | NOM-004-SCT2-1994 |
| Not applicable. | Not applicable. |





SAFETY DATA SHEET

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood. The Blaster Corporation does not recommend shipping their aerosol products by air.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Mexico: SDS prepared pursuant to NOM-018-STPS-2000.

| SARA Title III | | | | |
|--|------------------------------|---------------------------|------------------|-------------|
| Ingredient | Section 302 (EHS) TPQ (lbs.) | Section 304 EHS RQ (lbs.) | CERCLA RQ (lbs.) | Section 313 |
| Distillates (petroleum), hydrotreated light | Not listed. | Not listed. | Not listed. | Not listed. |
| Solvent naphtha (petroleum), heavy aromatic | Not listed. | Not listed. | Not listed. | Not listed. |
| Distillates (petroleum), hydrotreated heavy naphthenic | Not listed. | Not listed. | Not listed. | Not listed. |
| Carbon dioxide | Not listed. | Not listed. | Not listed. | Not listed. |
| Naphthalene | Not listed. | Not listed. | 100 | 313 |
| Dinonylphenol, ethoxylated, phosphated | Not listed. | Not listed. | Not listed. | Not listed. |

State Regulations

California Proposition 65:

This product contains a chemical known to the State of California to cause cancer.

Global Inventories:

| Ingredient | USA TSCA |
|--|----------|
| Distillates (petroleum), hydrotreated light | Yes. |
| Solvent naphtha (petroleum), heavy aromatic | Yes. |
| Distillates (petroleum), hydrotreated heavy naphthenic | Yes. |
| Carbon dioxide | Yes. |
| Naphthalene | Yes. |
| Dinonylphenol, ethoxylated, phosphated | Yes. |





SAFETY DATA SHEET

| NFPA-National Fire Protection Association: | |
|--|---|
| Health: | 2 |
| Fire: | 4 |
| Reactivity: | 0 |

| HMIS-Hazardous Materials Identification System: | |
|---|----|
| Health: | 2* |
| Fire: | 4 |
| Physical Hazard: | 0 |

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 California Proposition 65

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: Feb. 3, 2016

Version: 1.0

Revision Date: Feb. 3, 2016

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

End of Safety Data Sheet



PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

LA-CO Industries, Inc.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)
Date of issue: 05/06/2015
Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

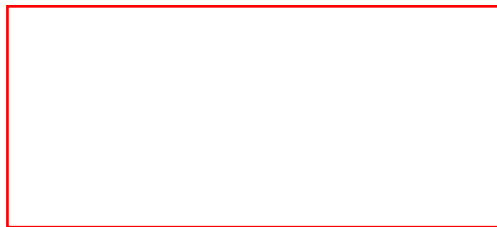
Product form : Article
Trade name : PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE
Synonyms : PIPE THREAD SEAL TAPE
Slic-tite® PTFE PIPE THREAD TAPE - White, Yellow, Pink
CORD OF PTFE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : sealant

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com



1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

No hazardous components.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person.
First-aid measures after inhalation : Not applicable.
First-aid measures after skin contact : Wash with plenty of soap and water.
First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water.
First-aid measures after ingestion : Drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : AFFF. Dry chemical. Carbon dioxide.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Sweep or shovel into suitable containers.

Methods for cleaning up : Recover the product mechanically.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies.

Storage temperature : -53.89 - 371.1 °C

Heat and ignition sources : Keep away from heat, sparks and flame.

Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

sealant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

| | |
|-------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

8.2. Exposure controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : Ensure good ventilation of the work station. |
| Personal protective equipment | : Avoid all unnecessary exposure. |
| Hand protection | : None under normal use. |
| Eye protection | : None under normal use. |
| Respiratory protection | : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-----------------------|
| Physical state | : Solid |
| Colour | : Variable. |
| Odour | : odourless. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : insoluble in water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

| | |
|-------------|--------|
| VOC content | : 0 °C |
|-------------|--------|

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|----------------|------------------|
| Acute toxicity | : Not classified |
|----------------|------------------|

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

| | |
|--|------------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |
| Potential adverse human health effects and symptoms | |
| Likely routes of exposure | : Skin and eye contact |

SECTION 12: Ecological information

12.1 Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR) : Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

National regulations

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

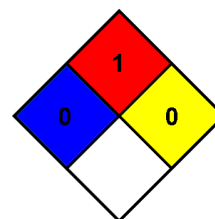
All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations

No additional information available

SECTION 16: Other information

| | |
|----------------------------|---|
| Indication of changes | : Original Document. |
| Data sources | : ACGIH (American Conference of Government Industrial Hygienists). European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database . Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html . |
| Abbreviations and acronyms | : ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. CLP: Classification, Labelling, Packaging. EC50: Environmental Concentration associated with a response by 50% of the test population. GHS: Globally Harmonized System (of Classification and Labeling of Chemicals). LD50: Lethal Dose for 50% of the test population. OSHA: Occupational Safety & Health Administration. PBT: Persistent, Bioaccumulative, Toxic. TWA: Time Weight Average. TSCA: Toxic Substances Control Act. |
| Other information | : None. |
| NFPA health hazard | : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials. |
| NFPA fire hazard | : 1 - Must be preheated before ignition can occur. |
| NFPA reactivity | : 0 - Normally stable, even under fire exposure conditions, and not reactive with water. |



SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

LACO NA GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

LA-CO Industries, Inc.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)
Date of issue: 05/06/2015
Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Article
Trade name : PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE
Synonyms : PIPE THREAD SEAL TAPE
Slic-tite® PTFE PIPE THREAD TAPE - White, Yellow, Pink
CORD OF PTFE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : sealant

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com



1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

No hazardous components.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person.
First-aid measures after inhalation : Not applicable.
First-aid measures after skin contact : Wash with plenty of soap and water.
First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water.
First-aid measures after ingestion : Drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : AFFF. Dry chemical. Carbon dioxide.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Sweep or shovel into suitable containers.

Methods for cleaning up : Recover the product mechanically.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies.

Storage temperature : -53.89 - 371.1 °C

Heat and ignition sources : Keep away from heat, sparks and flame.

Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

sealant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

| | |
|-------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

8.2. Exposure controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : Ensure good ventilation of the work station. |
| Personal protective equipment | : Avoid all unnecessary exposure. |
| Hand protection | : None under normal use. |
| Eye protection | : None under normal use. |
| Respiratory protection | : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-----------------------|
| Physical state | : Solid |
| Colour | : Variable. |
| Odour | : odourless. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : insoluble in water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

| | |
|-------------|--------|
| VOC content | : 0 °C |
|-------------|--------|

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|----------------|------------------|
| Acute toxicity | : Not classified |
|----------------|------------------|

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

| | |
|--|------------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |
| Potential adverse human health effects and symptoms | |
| Likely routes of exposure | : Skin and eye contact |

SECTION 12: Ecological information

12.1 Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR) : Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

National regulations

PIPE THREAD SEAL TAPE; Slic-tite® PTFE PIPE THREAD TAPE; CORD OF PTFE

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

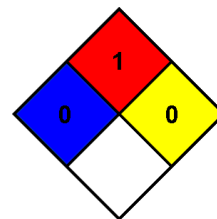
All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations

No additional information available

SECTION 16: Other information

| | |
|----------------------------|---|
| Indication of changes | : Original Document. |
| Data sources | : ACGIH (American Conference of Government Industrial Hygienists). European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database . Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html . |
| Abbreviations and acronyms | : ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. CLP: Classification, Labelling, Packaging. EC50: Environmental Concentration associated with a response by 50% of the test population. GHS: Globally Harmonized System (of Classification and Labeling of Chemicals). LD50: Lethal Dose for 50% of the test population. OSHA: Occupational Safety & Health Administration. PBT: Persistent, Bioaccumulative, Toxic. TWA: Time Weight Average. TSCA: Toxic Substances Control Act. |
| Other information | : None. |
| NFPA health hazard | : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials. |
| NFPA fire hazard | : 1 - Must be preheated before ignition can occur. |
| NFPA reactivity | : 0 - Normally stable, even under fire exposure conditions, and not reactive with water. |



SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

LACO NA GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



SAFETY DATA SHEET

1. Product And Company Identification

SDS ID: SDS 589
 PRODUCT NAME: Prestone® Power Steering Fluid
 PRODUCT NUMBER: AS260/4, AS260PSP/4, AS260Y, AS261/4, AS261PSP/4, AS261Y, AS265/4, AS266-55/4.
 FORMULA NUMBER: 2396-60, 2488-64-3, 2488-64-4, 2482-120

| | |
|---|--|
| MANUFACTURER: Prestone Products Corporation Danbury, CT 06810-5109 | CANADIAN OFFICE: FRAM Group (Canada), Inc. Mississauga, Ontario L5L 3S6 |
|---|--|

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(800)890-2075 (in the US)
 (800)668-9349 (in Canada)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US)
 CANUTEC (613)996-6666 (in Canada)

SDS DATE OF PREPARATION/REVISION: 05/06/14

PRODUCT USE: Automobile fluid – consumer product
 RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS/HAZCOM 2012 Classification:

| Health | Physical |
|---------------|---------------|
| Not Hazardous | Not Hazardous |

Label Elements: None

3. Composition/Information On Ingredients

| Component | CAS No. | Amount % |
|-------------------------------|-------------|----------|
| Highly Refined Petroleum Oils | Proprietary | 80-100 |
| Alkoxy Sulfolane | Proprietary | 0-5 |
| Zinc Compounds | Proprietary | <1 |
| Proprietary Additive | Proprietary | <1 |

The exact concentrations are a trade secret.

4. First Aid Measures

INHALATION: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash all affected and exposed areas with soap and water. If skin irritation or redness develops and persists, seek medical attention. High pressure injection of this product through the skin is a medical emergency. This product must be removed completely from under the skin. Seek immediate medical attention.

EYE CONTACT: Exposed eyes should be immediately flushed with copious amounts of water using a steady stream for a minimum of 15 minutes. If irritation, pain, swelling or tearing persist, seek medical attention.



INGESTION: DO NOT induce vomiting. Get immediate medical assistance by calling an emergency room or poison control center. If medical advice cannot be obtained, take the person and product to the nearest medical emergency treatment center or hospital. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Never give anything by mouth to a person who is unconscious or drowsy.

MOST IMPORTANT SYMPTOMS: Upon ingestion, there is a slight risk of aspiration in the lungs which can lead to pneumonitis and non-cardiogenic pulmonary edema. Prolonged skin contact may cause irritation. Breathing high vapor concentrations may cause headache, dizziness, drowsiness or lung irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Oil injection into the skin from high-pressure hydraulic systems may cause severe injury. Seek medical attention immediately. Surgical removal may be necessary.

NOTES TO PHYSICIAN: There is no specific antidote. The petroleum oil and other ingredients in this product are unlikely to produce systemic symptoms following accidental ingestion. Upon ingestion, there is a slight risk of aspiration in the lungs which can lead to pneumonitis and non-cardiogenic pulmonary edema. Do not induce vomiting. If aspiration is suspected the patient should be observed for sign of lung injury. Treatment should be directed at the control of symptoms and clinical conditions. Subcutaneous or intramuscular injection requires prompt surgical debridement. There may be no signs of injury or pain initially. Failure to provide immediate treatment may result in extensive necrosis.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: Use water fog, foam, carbon dioxide or dry chemical. Water or foam may cause frothing. Cool fire exposed containers with water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: This product can burn but will not readily ignite. Vapors may be released when heated above the flashpoint that can ignite when exposed to an ignition source. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flashpoint. Containers may rupture from excessive heat. Burning may produce carbon monoxide, carbon dioxide, trace oxides of sulfur, phosphorous, zinc and nitrogen.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect material with an inert absorbent material and shovel into appropriate container for disposal. For large spill, recover free product by pumping and place in appropriate, labeled container. Use caution when walking in spilled area. This product can create a slip hazard. Keep out of sewers, watercourses and low areas.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Avoid contact with the eyes. Avoid prolonged or repeated contact with skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Wash exposed skin with soap and water after use.

High pressure injection of this product through the skin is a medical emergency.



Empty containers retain product residue and may be hazardous. Do not cut, weld, drill, etc. containers, even empty. Do not reuse empty containers unless properly cleaned.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Keep container away from excessive heat and open flames. Keep containers closed when not in use. Store in a cool, dry, well-ventilated area.

NFPA CLASSIFICATION: III B

8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

| CHEMICAL | EXPOSURE LIMIT |
|-------------------------------|---|
| Highly Refined Petroleum Oils | 5 gm/m ³ OSHA PEL 5 mg/m ³ ACGIH TLV |
| Alkoxy Sulfolane | None Established |
| Zinc Compounds | None Established |
| Proprietary Additive | None Established |

APPROPRIATE ENGINEERING CONTROLS: None needed under normal use conditions. For operations where the exposure limit may be exceeded, forced ventilation such as local exhaust is required.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None under normal use conditions. For operations where the exposure limit may be exceeded, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

GLOVES: Impervious gloves such as heavy nitrile are recommended where prolonged skin contact may occur. Use heat-resistant gloves when handling product at elevated temperatures.

EYE PROTECTION: Safety glasses or chemical splash goggles are recommended.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact. Suitable eye flushing facilities should be available in the work area. Contaminated clothing should be immediately removed and laundered before re-use.

9. Physical and Chemical Properties

| | | | |
|---------------------------|--------------------|----------------------|--|
| APPEARANCE: | Clear amber oil | ODOR: | Petroleum odor |
| ODOR THRESHOLD: | None | pH: | Not determined |
| MELTING/FREEZING POINT: | Not applicable | BOILING POINT/RANGE: | >690°F (>365.5°C) |
| FLASH POINT: | >399°F (204°C) COC | EVAPORATION RATE: | Slow |
| FLAMMABILITY (SOLID, GAS) | Not Applicable | FLAMMABILITY LIMITS: | LEL: Not determined UEL: Not determined |
| VAPOR PRESSURE: | < 0.1 mm Hg @ 20°C | VAPOR DENSITY: | >1 |
| RELATIVE DENSITY: | 0.87 | SOLUBILITIES | Water: Negligible |



PERSISTENCE AND DEGRADABILITY:

Inherently biodegradable in aerobic conditions. Partition Coefficient (log Kow): >6 (based on similar materials)

BIOACCUMULATIVE POTENTIAL:

No data available for product.

MOBILITY IN SOIL:

No data available for product.

OTHER ADVERSE EFFECTS: Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum products can be harmful or fatal to aquatic life and water fowl.

13. Disposal Considerations

Recycle, incinerate or landfill in accordance with all local, state/provincial and federal regulations.

14. Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not Regulated

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Zinc Compounds <1%

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CALIFORNIA PROPOSITION 65: This product contains the following chemicals known to the state of California to cause cancer and/or reproductive harm: None known

CANADIAN WHMIS CLASSIFICATION: Not a controlled product.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.



AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemical List (KECL).

PHILIPPINES: All of the ingredients of this product are listed on the Philippine Inventory of Chemical and Chemical Substance (PICCS)

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).

| |
|------------------------------|
| 16. Other Information |
|------------------------------|

NFPA RATING (NFPA 704) - FIRE: 1 HEALTH: 1 INSTABILITY: 0

REVISION SUMMARY: Update to US Hazcom 2012 GHS format. Changes to all sections.

SDS Date of Preparation/Revision: May 6, 2014

This SDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact: Prestone Products Corporation
69 Eagle Road
Danbury, CT 06810
(800) 890-2075



SAFETY DATA SHEET

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SDS ID: SDS 589
 PRODUCT NAME: Prestone® Power Steering Fluid
 PRODUCT NUMBER: AS260/4, AS260PSP/4, AS260Y, AS261/4, AS261PSP/4, AS261Y, AS265/4, AS266-55/4.
 FORMULA NUMBER: 2396-60, 2488-64-3, 2488-64-4, 2482-120

| | |
|--|---|
| MANUFACTURER: Prestone Products Corporation Danbury, CT 06810-5109 | CANADIAN OFFICE: FRAM Group (Canada), Inc. Mississauga, Ontario L5L 3S6 |
|--|---|

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(800)890-2075 (in the US)
 (800)668-9349 (in Canada)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US)
 CANUTEC (613)996-6666 (in Canada)

SDS DATE OF PREPARATION/REVISION: 05/06/14

PRODUCT USE: Automobile fluid – consumer product
 RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS/HAZCOM 2012 Classification:

| Health | Physical |
|---------------|---------------|
| Not Hazardous | Not Hazardous |

Label Elements: None

3. Composition/Information On Ingredients

| Component | CAS No. | Amount % |
|-------------------------------|-------------|----------|
| Highly Refined Petroleum Oils | Proprietary | 80-100 |
| Alkoxy Sulfolane | Proprietary | 0-5 |
| Zinc Compounds | Proprietary | <1 |
| Proprietary Additive | Proprietary | <1 |

The exact concentrations are a trade secret.

4. First Aid Measures

INHALATION: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash all affected and exposed areas with soap and water. If skin irritation or redness develops and persists, seek medical attention. High pressure injection of this product through the skin is a medical emergency. This product must be removed completely from under the skin. Seek immediate medical attention.

EYE CONTACT: Exposed eyes should be immediately flushed with copious amounts of water using a steady stream for a minimum of 15 minutes. If irritation, pain, swelling or tearing persist, seek medical attention.



INGESTION: DO NOT induce vomiting. Get immediate medical assistance by calling an emergency room or poison control center. If medical advice cannot be obtained, take the person and product to the nearest medical emergency treatment center or hospital. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Never give anything by mouth to a person who is unconscious or drowsy.

MOST IMPORTANT SYMPTOMS: Upon ingestion, there is a slight risk of aspiration in the lungs which can lead to pneumonitis and non-cardiogenic pulmonary edema. Prolonged skin contact may cause irritation. Breathing high vapor concentrations may cause headache, dizziness, drowsiness or lung irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Oil injection into the skin from high-pressure hydraulic systems may cause severe injury. Seek medical attention immediately. Surgical removal may be necessary.

NOTES TO PHYSICIAN: There is no specific antidote. The petroleum oil and other ingredients in this product are unlikely to produce systemic symptoms following accidental ingestion. Upon ingestion, there is a slight risk of aspiration in the lungs which can lead to pneumonitis and non-cardiogenic pulmonary edema. Do not induce vomiting. If aspiration is suspected the patient should be observed for sign of lung injury. Treatment should be directed at the control of symptoms and clinical conditions. Subcutaneous or intramuscular injection requires prompt surgical debridement. There may be no signs of injury or pain initially. Failure to provide immediate treatment may result in extensive necrosis.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: Use water fog, foam, carbon dioxide or dry chemical. Water or foam may cause frothing. Cool fire exposed containers with water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: This product can burn but will not readily ignite. Vapors may be released when heated above the flashpoint that can ignite when exposed to an ignition source. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flashpoint. Containers may rupture from excessive heat. Burning may produce carbon monoxide, carbon dioxide, trace oxides of sulfur, phosphorous, zinc and nitrogen.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect material with an inert absorbent material and shovel into appropriate container for disposal. For large spill, recover free product by pumping and place in appropriate, labeled container. Use caution when walking in spilled area. This product can create a slip hazard. Keep out of sewers, watercourses and low areas.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Avoid contact with the eyes. Avoid prolonged or repeated contact with skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Wash exposed skin with soap and water after use.

High pressure injection of this product through the skin is a medical emergency.



Empty containers retain product residue and may be hazardous. Do not cut, weld, drill, etc. containers, even empty. Do not reuse empty containers unless properly cleaned.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Keep container away from excessive heat and open flames. Keep containers closed when not in use. Store in a cool, dry, well-ventilated area.

NFPA CLASSIFICATION: III B

8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

| CHEMICAL | EXPOSURE LIMIT |
|-------------------------------|---|
| Highly Refined Petroleum Oils | 5 gm/m ³ OSHA PEL 5 mg/m ³ ACGIH TLV |
| Alkoxy Sulfolane | None Established |
| Zinc Compounds | None Established |
| Proprietary Additive | None Established |

APPROPRIATE ENGINEERING CONTROLS: None needed under normal use conditions. For operations where the exposure limit may be exceeded, forced ventilation such as local exhaust is required.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None under normal use conditions. For operations where the exposure limit may be exceeded, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

GLOVES: Impervious gloves such as heavy nitrile are recommended where prolonged skin contact may occur. Use heat-resistant gloves when handling product at elevated temperatures.

EYE PROTECTION: Safety glasses or chemical splash goggles are recommended.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact. Suitable eye flushing facilities should be available in the work area. Contaminated clothing should be immediately removed and laundered before re-use.

9. Physical and Chemical Properties

| | | | |
|---------------------------|--------------------|----------------------|--|
| APPEARANCE: | Clear amber oil | ODOR: | Petroleum odor |
| ODOR THRESHOLD: | None | pH: | Not determined |
| MELTING/FREEZING POINT: | Not applicable | BOILING POINT/RANGE: | >690°F (>365.5°C) |
| FLASH POINT: | >399°F (204°C) COC | EVAPORATION RATE: | Slow |
| FLAMMABILITY (SOLID, GAS) | Not Applicable | FLAMMABILITY LIMITS: | LEL: Not determined UEL: Not determined |
| VAPOR PRESSURE: | < 0.1 mm Hg @ 20°C | VAPOR DENSITY: | >1 |
| RELATIVE DENSITY: | 0.87 | SOLUBILITIES | Water: Negligible |

PERSISTENCE AND DEGRADABILITY:

Inherently biodegradable in aerobic conditions. Partition Coefficient (log Kow): >6 (based on similar materials)

BIOACCUMULATIVE POTENTIAL:

No data available for product.

MOBILITY IN SOIL:

No data available for product.

OTHER ADVERSE EFFECTS: Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum products can be harmful or fatal to aquatic life and water fowl.

| |
|------------------------------------|
| 13. Disposal Considerations |
|------------------------------------|

Recycle, incinerate or landfill in accordance with all local, state/provincial and federal regulations.

| |
|----------------------------------|
| 14. Transport Information |
|----------------------------------|

U.S. DOT HAZARD CLASSIFICATION: Not Regulated

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

| |
|-----------------------------------|
| 15. Regulatory Information |
|-----------------------------------|

EPA SARA 311/312 HAZARD CLASSIFICATION: Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Zinc Compounds <1%

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CALIFORNIA PROPOSITION 65: This product contains the following chemicals known to the state of California to cause cancer and/or reproductive harm: None known

CANADIAN WHMIS CLASSIFICATION: Not a controlled product.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.



AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemical List (KECL).

PHILIPPINES: All of the ingredients of this product are listed on the Philippine Inventory of Chemical and Chemical Substance (PICCS)

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).

| |
|------------------------------|
| 16. Other Information |
|------------------------------|

NFPA RATING (NFPA 704) - FIRE: 1 HEALTH: 1 INSTABILITY: 0

REVISION SUMMARY: Update to US Hazcom 2012 GHS format. Changes to all sections.

SDS Date of Preparation/Revision: May 6, 2014

This SDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact: Prestone Products Corporation
69 Eagle Road
Danbury, CT 06810
(800) 890-2075

Safety Data Sheet



1. Identification

| | | | |
|-----------------------------|--|-------------------------|--|
| Product Name: | PRO LSPR 6PK MARK CAUTION BLUE | Revision Date: | 5/22/2017 |
| Product Identifier: | 2524838 | Supersedes Date: | 1/28/2015 |
| Product Use/Class: | Marking Paint/Aerosols | | |
| Supplier: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA | Manufacturer: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA |
| Preparer: | Regulatory Department | | |
| Emergency Telephone: | 24 Hour Hotline: 847-367-7700 | | |

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

28% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

| | | |
|-------------------------------|------|---|
| Flammable Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| Compressed Gas | H280 | Contains gas under pressure; may explode if heated. |
| Carcinogenicity, category 2 | H351 | Suspected of causing cancer. |

GHS LABEL PRECAUTIONARY STATEMENTS

| | |
|-----------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |
| P201 | Obtain special instructions before use. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local, regional and national regulations. |

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>Wt. % Range</u> | <u>GHS Symbols</u> | <u>GHS Statements</u> |
|--|----------------|--------------------|--------------------|-----------------------|
| Propane | 74-98-6 | 10-25 | GHS04 | H280 |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 10-25 | GHS08 | H304 |
| n-Butane | 106-97-8 | 2.5-10 | GHS04 | H280 |
| Titanium Dioxide | 13463-67-7 | 2.5-10 | Not Available | Not Available |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 2.5-10 | GHS02-GHS07 | H226-315-319-332 |
| n-Butyl Acetate | 123-86-4 | 2.5-10 | GHS02-GHS07 | H226-336 |
| Talc (Hydrous Magnesium Silicate) | 14807-96-6 | 2.5-10 | Not Available | Not Available |
| Ethylbenzene | 100-41-4 | 0.1-1.0 | GHS02-GHS07-GHS08 | H225-304-332-351-373 |
| Crystalline Silica / Quartz | 14808-60-7 | 0.1-1.0 | Not Available | Not Available |

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

8. Exposure Controls/Personal Protection

| Chemical Name | CAS-No. | Weight % Less Than | ACGIH TLV- TWA | ACGIH TLV- STEL | OSHA PEL- TWA | OSHA PEL- CEILING |
|---|------------|-----------------------|-------------------|--------------------|------------------|----------------------|
| Propane | 74-98-6 | 20.0 | N.E. | N.E. | 1000 ppm | N.E. |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 15.0 | N.E. | N.E. | N.E. | N.E. |
| n-Butane | 106-97-8 | 10.0 | N.E. | 1000 ppm | N.E. | N.E. |
| Titanium Dioxide | 13463-67-7 | 10.0 | 10 mg/m3 | N.E. | 15 mg/m3 | N.E. |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 5.0 | 100 ppm | 150 ppm | 100 ppm | N.E. |
| n-Butyl Acetate | 123-86-4 | 5.0 | 50 ppm | 150 ppm | 150 ppm | N.E. |
| Talc (Hydrous Magnesium Silicate) | 14807-96-6 | 5.0 | 2 mg/m3 | N.E. | N.E. | N.E. |
| Ethylbenzene | 100-41-4 | 1.0 | 20 ppm | N.E. | 100 ppm | N.E. |
| Crystalline Silica / Quartz | 14808-60-7 | 1.0 | 0.025 mg/m3 | N.E. | 50 µg/m3 | N.E. |

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

| | | | |
|---------------------------------|---------------------|---|------------|
| Appearance: | Aerosolized Mist | Physical State: | Liquid |
| Odor: | Solvent Like | Odor Threshold: | N.E. |
| Relative Density: | 0.858 | pH: | N.A. |
| Freeze Point, °C: | N.D. | Viscosity: | N.D. |
| Solubility in Water: | Slight | Partition Coefficient, n- octanol/water: | N.D. |
| Decomposition Temp., °C: | N.D. | Explosive Limits, vol%: | 0.9 - 12.6 |
| Boiling Range, °C: | -37 - 537 | Flash Point, °C: | -96 |
| Flammability: | Supports Combustion | Auto-ignition Temp., °C: | N.D. |
| Evaporation Rate: | Faster than Ether | Vapor Pressure: | N.D. |
| Vapor Density: | Heavier than Air | | |

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition. Avoid contact with strong acid and strong bases.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> |
|----------------|--|------------------|---------------------|-------------------|
| 74-98-6 | Propane | N.I. | N.I. | 658 mg/L Rat |
| 64742-49-0 | Naphtha, Petroleum, Hydrotreated Light | >5000 mg/kg Rat | >3160 mg/kg Rabbit | >4951 mg/L Rat |
| 106-97-8 | n-Butane | N.I. | N.I. | 658 mg/L Rat |
| 13463-67-7 | Titanium Dioxide | >10000 mg/kg Rat | 2500 mg/kg | N.I. |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 3500 mg/kg Rat | >4350 mg/kg Rabbit | 29.08 mg/L Rat |
| 123-86-4 | n-Butyl Acetate | 10768 mg/kg Rat | >17600 mg/kg Rabbit | > 21 mg/L Rat |
| 14807-96-6 | Talc (Hydrous Magnesium Silicate) | 6000 | N.I. | 30 |
| 100-41-4 | Ethylbenzene | 3500 mg/kg Rat | 15400 mg/kg Rabbit | 17.4 mg/L Rat |
| 14808-60-7 | Crystalline Silica / Quartz | 5500 mg/kg Rat | 5500 | 100 mg/L |

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

| | <u>Domestic (USDOT)</u> | <u>International (IMDG)</u> | <u>Air (IATA)</u> | <u>TDG (Canada)</u> |
|------------------------------|--------------------------------------|-----------------------------|-------------------|--------------------------------------|
| UN Number: | N.A. | 1950 | 1950 | N.A. |
| Proper Shipping Name: | Paint Products in Limited Quantities | Aerosols | Aerosols | Paint Products in Limited Quantities |
| Hazard Class: | N.A. | 2.1 | 2.1 | N.A. |
| Packing Group: | N.A. | N.A. | N.A. | N.A. |
| Limited Quantity: | Yes | Yes | Yes | Yes |

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|------------------------------|----------------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 |
| Ethylbenzene | 100-41-4 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|-----------------------------------|----------------|
| Castor oil, sulfated, sodium salt | 68187-76-8 |

16. Other Information**HMS RATINGS**

Health: 2* Flammability: 4 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 4 Instability: 0

VOLATILE ORGANIC COMPOUNDS, g/L: 561

SDS REVISION DATE: 5/22/2017

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
02 - Hazard Identification
05 - Fire-fighting Measures
09 - Physical & Chemical Properties
15 - Regulatory Information
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet



1. Identification

| | | | |
|-----------------------------|--|-------------------------|--|
| Product Name: | PRO LSPR 6PK MARK CAUTION BLUE | Revision Date: | 5/22/2017 |
| Product Identifier: | 2524838 | Supercedes Date: | 1/28/2015 |
| Product Use/Class: | Marking Paint/Aerosols | | |
| Supplier: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA | Manufacturer: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA |
| Preparer: | Regulatory Department | | |
| Emergency Telephone: | 24 Hour Hotline: 847-367-7700 | | |

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

28% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

| | | |
|-------------------------------|------|---|
| Flammable Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| Compressed Gas | H280 | Contains gas under pressure; may explode if heated. |
| Carcinogenicity, category 2 | H351 | Suspected of causing cancer. |

GHS LABEL PRECAUTIONARY STATEMENTS

| | |
|-----------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |
| P201 | Obtain special instructions before use. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local, regional and national regulations. |

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>Wt. % Range</u> | <u>GHS Symbols</u> | <u>GHS Statements</u> |
|--|----------------|--------------------|--------------------|-----------------------|
| Propane | 74-98-6 | 10-25 | GHS04 | H280 |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 10-25 | GHS08 | H304 |
| n-Butane | 106-97-8 | 2.5-10 | GHS04 | H280 |
| Titanium Dioxide | 13463-67-7 | 2.5-10 | Not Available | Not Available |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 2.5-10 | GHS02-GHS07 | H226-315-319-332 |
| n-Butyl Acetate | 123-86-4 | 2.5-10 | GHS02-GHS07 | H226-336 |
| Talc (Hydrous Magnesium Silicate) | 14807-96-6 | 2.5-10 | Not Available | Not Available |
| Ethylbenzene | 100-41-4 | 0.1-1.0 | GHS02-GHS07-GHS08 | H225-304-332-351-373 |
| Crystalline Silica / Quartz | 14808-60-7 | 0.1-1.0 | Not Available | Not Available |

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

8. Exposure Controls/Personal Protection

| Chemical Name | CAS-No. | Weight % Less Than | ACGIH TLV- TWA | ACGIH TLV- STEL | OSHA PEL- TWA | OSHA PEL- CEILING |
|---|------------|-----------------------|-------------------|--------------------|------------------|----------------------|
| Propane | 74-98-6 | 20.0 | N.E. | N.E. | 1000 ppm | N.E. |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 15.0 | N.E. | N.E. | N.E. | N.E. |
| n-Butane | 106-97-8 | 10.0 | N.E. | 1000 ppm | N.E. | N.E. |
| Titanium Dioxide | 13463-67-7 | 10.0 | 10 mg/m3 | N.E. | 15 mg/m3 | N.E. |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 5.0 | 100 ppm | 150 ppm | 100 ppm | N.E. |
| n-Butyl Acetate | 123-86-4 | 5.0 | 50 ppm | 150 ppm | 150 ppm | N.E. |
| Talc (Hydrous Magnesium Silicate) | 14807-96-6 | 5.0 | 2 mg/m3 | N.E. | N.E. | N.E. |
| Ethylbenzene | 100-41-4 | 1.0 | 20 ppm | N.E. | 100 ppm | N.E. |
| Crystalline Silica / Quartz | 14808-60-7 | 1.0 | 0.025 mg/m3 | N.E. | 50 µg/m3 | N.E. |

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

| | | | |
|---------------------------------|---------------------|---|------------|
| Appearance: | Aerosolized Mist | Physical State: | Liquid |
| Odor: | Solvent Like | Odor Threshold: | N.E. |
| Relative Density: | 0.858 | pH: | N.A. |
| Freeze Point, °C: | N.D. | Viscosity: | N.D. |
| Solubility in Water: | Slight | Partition Coefficient, n- octanol/water: | N.D. |
| Decomposition Temp., °C: | N.D. | Explosive Limits, vol%: | 0.9 - 12.6 |
| Boiling Range, °C: | -37 - 537 | Flash Point, °C: | -96 |
| Flammability: | Supports Combustion | Auto-ignition Temp., °C: | N.D. |
| Evaporation Rate: | Faster than Ether | Vapor Pressure: | N.D. |
| Vapor Density: | Heavier than Air | | |

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition. Avoid contact with strong acid and strong bases.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> |
|----------------|--|------------------|---------------------|-------------------|
| 74-98-6 | Propane | N.I. | N.I. | 658 mg/L Rat |
| 64742-49-0 | Naphtha, Petroleum, Hydrotreated Light | >5000 mg/kg Rat | >3160 mg/kg Rabbit | >4951 mg/L Rat |
| 106-97-8 | n-Butane | N.I. | N.I. | 658 mg/L Rat |
| 13463-67-7 | Titanium Dioxide | >10000 mg/kg Rat | 2500 mg/kg | N.I. |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 3500 mg/kg Rat | >4350 mg/kg Rabbit | 29.08 mg/L Rat |
| 123-86-4 | n-Butyl Acetate | 10768 mg/kg Rat | >17600 mg/kg Rabbit | > 21 mg/L Rat |
| 14807-96-6 | Talc (Hydrous Magnesium Silicate) | 6000 | N.I. | 30 |
| 100-41-4 | Ethylbenzene | 3500 mg/kg Rat | 15400 mg/kg Rabbit | 17.4 mg/L Rat |
| 14808-60-7 | Crystalline Silica / Quartz | 5500 mg/kg Rat | 5500 | 100 mg/L |

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

| | <u>Domestic (USDOT)</u> | <u>International (IMDG)</u> | <u>Air (IATA)</u> | <u>TDG (Canada)</u> |
|------------------------------|--------------------------------------|-----------------------------|-------------------|--------------------------------------|
| UN Number: | N.A. | 1950 | 1950 | N.A. |
| Proper Shipping Name: | Paint Products in Limited Quantities | Aerosols | Aerosols | Paint Products in Limited Quantities |
| Hazard Class: | N.A. | 2.1 | 2.1 | N.A. |
| Packing Group: | N.A. | N.A. | N.A. | N.A. |
| Limited Quantity: | Yes | Yes | Yes | Yes |

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|------------------------------|----------------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 |
| Ethylbenzene | 100-41-4 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|-----------------------------------|----------------|
| Castor oil, sulfated, sodium salt | 68187-76-8 |

16. Other Information**HMIS RATINGS**

Health: 2* Flammability: 4 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 4 Instability: 0

VOLATILE ORGANIC COMPOUNDS, g/L: 561

SDS REVISION DATE: 5/22/2017

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
02 - Hazard Identification
05 - Fire-fighting Measures
09 - Physical & Chemical Properties
15 - Regulatory Information
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet



1. Identification

Product Name: PVTLBL SSPR 12PK QUICKC FLAT BLACK **Revision Date:** 11/4/2015
Product Identifier: J2853812 **Supersedes Date:** 9/3/2015
Product Use/Class: Topcoat/Aerosols
Supplier: Rust-Oleum Corporation **Manufacturer:** Rust-Oleum Corporation
 11 Hawthorn Parkway 11 Hawthorn Parkway
 Vernon Hills, IL 60061 Vernon Hills, IL 60061
 USA USA
Preparer: Regulatory Department
Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

85% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

| | | |
|--|------|--|
| Acute Toxicity, Inhalation, category 4 | H332 | Harmful if inhaled. |
| Carcinogenicity, category 1B | H350 | May cause cancer. |
| Compressed Gas | H280 | Contains gas under pressure; may explode if heated. |
| Eye Irritation, category 2 | H319 | Causes serious eye irritation. |
| Flammable Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| Germ Cell Mutagenicity, category 1B | H340 | May cause genetic defects. |
| STOT, repeated exposure, category 2 | H373 | May cause damage to organs through prolonged or repeated exposure. |
| STOT, single exposure, category 3, NE | H336 | May cause drowsiness or dizziness. |

GHS LABEL PRECAUTIONARY STATEMENTS

| | |
|----------------|--|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. NO SMOKING. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P260 | Do not breathe dust, fumes, gases, mists, vapors, or spray. |
| P281 | Use personal protective equipment as required. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |

| | |
|-----------|--|
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F. |

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>Wt.% Range</u> | <u>GHS Symbols</u> | <u>GHS Statements</u> |
|--|----------------|-------------------|--------------------|-----------------------|
| Acetone | 67-64-1 | 25-50 | GHS02-GHS07 | H225-319-332-336 |
| Propane | 74-98-6 | 10-25 | GHS04 | H280 |
| n-Butane | 106-97-8 | 10-25 | GHS04 | H280 |
| Hydrous Magnesium Silicate | 14807-96-6 | 2.5-10 | No Information | No Information |
| Xylene (mixed isomers) | 1330-20-7 | 2.5-10 | GHS02-GHS07 | H226-315-319-332 |
| Hydrotreated Light Distillate | 64742-47-8 | 2.5-10 | GHS08 | H304 |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 1.0-2.5 | GHS08 | H304-340-350 |
| Ethylbenzene | 100-41-4 | 1.0-2.5 | GHS02-GHS07-GHS08 | H225-304-332-373 |
| Aliphatic Hydrocarbon | 64742-89-8 | 1.0-2.5 | GHS08 | H304-340-350 |
| Carbon Black | 1333-86-4 | 0.1-1.0 | No Information | No Information |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 0.1-1.0 | GHS07-GHS08 | H304-332-340-350 |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | 0.1-1.0 | GHS06 | H302-310-315-319-330 |

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class I flammable liquids. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

| Chemical Name | CAS-No. | Weight % Less Than | ACGIH TLV- TWA | ACGIH TLV- STEL | OSHA PEL-TWA | OSHA PEL- CEILING |
|---|------------|-----------------------|---------------------|--------------------|-----------------------|----------------------|
| Acetone | 67-64-1 | 40.0 | 250 ppm | 500 ppm | 1000 ppm | N.E. |
| Propane | 74-98-6 | 25.0 | N.E. | N.E. | 1000 ppm | N.E. |
| n-Butane | 106-97-8 | 15.0 | N.E. | 1000 ppm | N.E. | N.E. |
| Hydrous Magnesium Silicate | 14807-96-6 | 10.0 | 2 mg/m ³ | N.E. | N.E. | N.E. |
| Xylene (mixed isomers) | 1330-20-7 | 10.0 | 100 ppm | 150 ppm | 100 ppm | N.E. |
| Hydrotreated Light Distillate | 64742-47-8 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Ethylbenzene | 100-41-4 | 5.0 | 20 ppm | N.E. | 100 ppm | N.E. |
| Aliphatic Hydrocarbon | 64742-89-8 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Carbon Black | 1333-86-4 | 1.0 | 3 mg/m ³ | N.E. | 3.5 mg/m ³ | N.E. |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 1.0 | N.E. | N.E. | N.E. | N.E. |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | 1.0 | 20 ppm | N.E. | 50 ppm | N.E. |

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

| | | | |
|---------------------------------|---------------------|---|------------|
| Appearance: | Aerosolized Mist | Physical State: | Liquid |
| Odor: | Solvent Like | Odor Threshold: | N.E. |
| Relative Density: | 0.711 | pH: | N.A. |
| Freeze Point, °C: | N.D. | Viscosity: | N.D. |
| Solubility in Water: | Slight | Partition Coefficient, n-octanol/ water: | N.D. |
| Decomposition Temp., °C: | N.D. | Explosive Limits, vol%: | 0.9 - 13.0 |
| Boiling Range, °C: | -24 - 204 | Flash Point, °C: | -96 |
| Flammability: | Supports Combustion | Auto-ignition Temp., °C: | N.D. |
| Evaporation Rate: | Faster than Ether | Vapor Pressure: | N.D. |
| Vapor Density: | Heavier than Air | | |

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> |
|----------------|----------------------------|------------------|--------------------|-------------------|
| 67-64-1 | Acetone | 5800 mg/kg Rat | N.I. | 50.1 mg/L Rat |
| 74-98-6 | Propane | N.I. | N.I. | 658 mg/L Rat |
| 106-97-8 | n-Butane | N.I. | N.I. | 658 mg/L Rat |
| 14807-96-6 | Hydrous Magnesium Silicate | 6000 | N.I. | 30 |
| 1330-20-7 | Xylene (mixed isomers) | 3500 mg/kg Rat | >4350 mg/kg Rabbit | 29.08 mg/L Rat |

| | | | | |
|------------|--|------------------|--------------------|----------------|
| 64742-47-8 | Hydrotreated Light Distillate | >5000 mg/kg Rat | >2000 mg/kg Rabbit | >5000 mg/L Rat |
| 64742-49-0 | Naphtha, Petroleum, Hydrotreated Light | >5000 mg/kg Rat | >3160 mg/kg Rabbit | >4951 mg/L Rat |
| 100-41-4 | Ethylbenzene | 3500 mg/kg Rat | 15400 mg/kg Rabbit | 17.2 mg/L Rat |
| 64742-89-8 | Aliphatic Hydrocarbon | N.I. | 3000 mg/kg Rabbit | N.I. |
| 1333-86-4 | Carbon Black | >15400 mg/kg Rat | N.I. | N.I. |
| 64742-95-6 | Solvent Naphtha, Light Aromatic | 8400 mg/kg Rat | >2000 mg/kg Rabbit | N.I. |
| 111-76-2 | Ethylene Glycol Monobutyl Ether | 470 mg/kg Rat | 99 mg/kg Rabbit | N.I. |

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

| | <u>Domestic (USDOT)</u> | <u>International (IMDG)</u> | <u>Air (IATA)</u> | <u>TDG (Canada)</u> |
|------------------------------|--------------------------------------|-----------------------------|-------------------|--------------------------------------|
| UN Number: | N.A. | 1950 | 1950 | N.A. |
| Proper Shipping Name: | Paint Products in Limited Quantities | Aerosols | Aerosols | Paint Products in Limited Quantities |
| Hazard Class: | N.A. | 2.1 | 2.1 | N.A. |
| Packing Group: | N.A. | N.A. | N.A. | N.A. |
| Limited Quantity: | Yes | Yes | Yes | Yes |

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|---------------------------------|----------------|
| Xylene (mixed isomers) | 1330-20-7 |
| Ethylbenzene | 100-41-4 |
| Ethylene Glycol Monobutyl Ether | 111-76-2 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information**HMIS RATINGS**

Health: 2* **Flammability:** 4 **Physical Hazard:** 0 **Personal Protection:** X

NFPA RATINGS

Health: 2 **Flammability:** 4 **Instability:** 0

VOLATILE ORGANIC COMPOUNDS, g/L: 540

SDS REVISION DATE: 11/4/2015

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
02 - Hazard Identification
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet



1. Identification

Product Name: PVTLBL SSPR 12PK QUICKC FLAT BLACK **Revision Date:** 2/4/2020
Product Identifier: J2853812 **Supersedes Date:** 1/14/2020
Recommended Use: Topcoat/Aerosols
Supplier: Rust-Oleum Corporation
 11 Hawthorn Parkway
 Vernon Hills, IL 60061
 USA **Manufacturer:** Rust-Oleum Corporation
 11 Hawthorn Parkway
 Vernon Hills, IL 60061
 USA
Preparer: Regulatory Department
Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

39% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

| | | |
|---------------------------------------|------|---|
| Carcinogenicity, category 1B | H350 | May cause cancer. |
| Compressed Gas | H280 | Contains gas under pressure; may explode if heated. |
| Eye Irritation, category 2A | H319 | Causes serious eye irritation. |
| Flammable Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| Germ Cell Mutagenicity, category 1B | H340 | May cause genetic defects. |
| STOT, single exposure, category 3, NE | H336 | May cause drowsiness or dizziness. |

GHS LABEL PRECAUTIONARY STATEMENTS

| | |
|-----------|--|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash hands thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

| | |
|----------------|--|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F. |
| P501 | Dispose of contents/container in accordance with local, regional and national regulations. |

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>Wt.% Range</u> | <u>GHS Symbols</u> | <u>GHS Statements</u> |
|--|----------------|-------------------|--------------------|-----------------------|
| Acetone | 67-64-1 | 25-50 | GHS02-GHS07 | H225-319-332-336 |
| Propane | 74-98-6 | 10-25 | GHS04 | H280 |
| n-Butane | 106-97-8 | 10-25 | GHS04 | H280 |
| Hydrotreated Light Distillate | 64742-47-8 | 2.5-10 | GHS08 | H304 |
| Hydrous Magnesium Silicate | 14807-96-6 | 2.5-10 | Not Available | Not Available |
| n-Butyl Acetate | 123-86-4 | 2.5-10 | GHS02-GHS07 | H226-336 |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 1.0-2.5 | GHS02-GHS07 | H226-315-319-332 |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 1.0-2.5 | GHS08 | H304 |
| Ethylbenzene | 100-41-4 | 0.1-1.0 | GHS02-GHS07-GHS08 | H225-304-332-351-373 |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 0.1-1.0 | GHS07-GHS08 | H304-332 |
| Aliphatic Hydrocarbon | 64742-89-8 | 0.1-1.0 | GHS08 | H304-340-350 |
| Carbon Black | 1333-86-4 | 0.1-1.0 | Not Available | Not Available |

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

| Chemical Name | CAS-No. | Weight % Less Than | ACGIH TLV- TWA | ACGIH TLV- STEL | OSHA PEL-TWA | OSHA PEL- CEILING |
|---|------------|-----------------------|-------------------|--------------------|--------------|----------------------|
| Acetone | 67-64-1 | 40.0 | 250 ppm | 500 ppm | 1000 ppm | N.E. |
| Propane | 74-98-6 | 25.0 | N.E. | N.E. | 1000 ppm | N.E. |
| n-Butane | 106-97-8 | 15.0 | N.E. | 1000 ppm | N.E. | N.E. |
| Hydrotreated Light Distillate | 64742-47-8 | 10.0 | N.E. | N.E. | N.E. | N.E. |
| Hydrous Magnesium Silicate | 14807-96-6 | 5.0 | 2 mg/m3 | N.E. | N.E. | N.E. |
| n-Butyl Acetate | 123-86-4 | 5.0 | 50 ppm | 150 ppm | 150 ppm | N.E. |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 5.0 | 100 ppm | 150 ppm | 100 ppm | N.E. |
| Naphtha, Petroleum, Hydrotreated Light | 64742-49-0 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Ethylbenzene | 100-41-4 | 1.0 | 20 ppm | N.E. | 100 ppm | N.E. |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 1.0 | N.E. | N.E. | N.E. | N.E. |
| Aliphatic Hydrocarbon | 64742-89-8 | 1.0 | N.E. | N.E. | N.E. | N.E. |
| Carbon Black | 1333-86-4 | 1.0 | 3 mg/m3 | N.E. | 3.5 mg/m3 | N.E. |

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

| | | | |
|---------------------------------|---------------------|--|------------|
| Appearance: | Aerosolized Mist | Physical State: | Liquid |
| Odor: | Solvent Like | Odor Threshold: | N.E. |
| Specific Gravity: | 0.715 | pH: | N.A. |
| Freeze Point, °C: | N.D. | Viscosity: | N.D. |
| Solubility in Water: | Slight | Partition Coefficient, n-octanol/water: | N.D. |
| Decomposition Temp., °C: | N.D. | Explosive Limits, vol%: | 0.9 - 13.0 |
| Boiling Range, °C: | -37 - 537 | Flash Point, °C: | -96 |
| Flammability: | Supports Combustion | Auto-ignition Temp., °C: | N.D. |
| Evaporation Rate: | Faster than Ether | Vapor Pressure: | N.D. |
| Vapor Density: | Heavier than Air | | |

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> |
|----------------|----------------------|------------------|---------------------|-------------------|
| 67-64-1 | Acetone | 5800 mg/kg Rat | >15700 mg/kg Rabbit | 50.1 mg/L Rat |
| 106-97-8 | n-Butane | N.E. | N.E. | 658 mg/L Rat |

| | | | | |
|------------|--|------------------|---------------------|----------------|
| 64742-47-8 | Hydrotreated Light Distillate | >5000 mg/kg Rat | >2000 mg/kg Rabbit | >5000 mg/L Rat |
| 14807-96-6 | Hydrous Magnesium Silicate | 6000 | N.E. | 30 |
| 123-86-4 | n-Butyl Acetate | 10768 mg/kg Rat | >17600 mg/kg Rabbit | > 21 mg/L Rat |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 3500 mg/kg Rat | >4350 mg/kg Rabbit | 29.08 mg/L Rat |
| 64742-49-0 | Naphtha, Petroleum, Hydrotreated Light | >5000 mg/kg Rat | >3160 mg/kg Rabbit | >4951 mg/L Rat |
| 100-41-4 | Ethylbenzene | 3500 mg/kg Rat | 15400 mg/kg Rabbit | 17.4 mg/L Rat |
| 64742-95-6 | Solvent Naphtha, Light Aromatic | 8400 mg/kg Rat | >2000 mg/kg Rabbit | N.E. |
| 64742-89-8 | Aliphatic Hydrocarbon | N.E. | 3000 mg/kg Rabbit | N.E. |
| 1333-86-4 | Carbon Black | >15400 mg/kg Rat | N.E. | N.E. |

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

14. Transport Information

| | <u>Domestic (USDOT)</u> | <u>International (IMDG)</u> | <u>Air (IATA)</u> | <u>TDG (Canada)</u> |
|------------------------------|---|-----------------------------|---------------------|---------------------|
| UN Number: | N.A. | 1950 | 1950 | N.A. |
| Proper Shipping Name: | Paint and Related Spray Products in Ltd Qty | Aerosols | Aerosols, flammable | Aerosols |
| Hazard Class: | N.A. | 2 | 2.1 | N.A. |
| Packing Group: | N.A. | N.A. | N.A. | N.A. |
| Limited Quantity: | Yes | Yes | Yes | Yes |

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure), Germ cell mutagenicity

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|------------------------------|----------------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 |
| Ethylbenzene | 100-41-4 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. State Regulations:**California Proposition 65:****WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.**16. Other Information****HMIS RATINGS**

| | | | | | | | |
|----------------|----|----------------------|---|-------------------------|---|-----------------------------|---|
| Health: | 2* | Flammability: | 4 | Physical Hazard: | 0 | Personal Protection: | X |
|----------------|----|----------------------|---|-------------------------|---|-----------------------------|---|

NFPA RATINGS

| | | | | | |
|----------------|---|----------------------|---|--------------------|---|
| Health: | 2 | Flammability: | 4 | Instability | 0 |
|----------------|---|----------------------|---|--------------------|---|

Maximum Incremental Reactivity 0.77**SDS REVISION DATE:** 2/4/2020

REASON FOR REVISION: Substance and/or Product Properties Changed in Section(s):
 01 - Identification
 16 - Other Information
 Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.D. - Not Determined, N.E. - Not Established

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

Section 1 – Identification

Identity/Product Name: Pyrosnuff Textile

Product Type: Textile coated with Pyrosnuff a proprietary product.

Manufacturer's Name: Buckeye Fabric Finishing Company
1260 East Main Street
Coshocton, Ohio 43812

Information Telephone No: (740) 622-3251

Recommended use: Manufacture of tarpaulin, curtains and coverings

Section 2 – Hazard(s) Identification

This product has been evaluated and does not require any Chemical hazard warning label under OSHA standard 29 CFR 1910.1200.

Section 3 – Composition/Information on Ingredients

Composition: This product is a coated textile which has been treated with a mixture of chemicals with a trade name of Pyrosnuff. Once the untreated fabric (uncoated textile) has been treated, it becomes an article with no known adverse health effects. This product is finished in industrial roll form and is sewn into products such as tarpaulin, curtains and coverings.

Section 4 – First-aid Measures

Although there are no known adverse health effects caused by exposure to the coated textile, workers who show any adverse health effects should seek prompt medical attention.

Section 5 – Fire-fighting Measures

Extinguishing Media: Water or any media suitable for source.

Special Fire Fighting Procedure: Self-contained breathing air equipment.

Section 6 – Accidental Release Measures

No specific actions are necessary.

Section 7 – Handling and Storage

A good ventilation system is recommended during handling of the coated textile by workers in product preparation, e.g., sewing and cutting.

Ventilation – Local exhaust is recommended.

Work/Hygienic Practices – Good industrial hygiene is recommended. Thin protective gloves should be worn if dermatitis occurs.

Section 8 – Exposure Control/Personal Protection

Ventilation – Local exhaust is recommended.

Work/Hygienic Practices – Good industrial hygiene is recommended.

Other Precautions: Thin protective gloves should be worn if dermatitis occurs.

Section 9 – Physical and Chemical Properties

Physical State: Solid fabric material.

Flash Point: Open cup > 500 degrees F

Section 10 – Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Reactions: None known to occur.

Section 11 – Toxicological Information

This product is a coated textile, which has been treated with a mixture of chemicals with a trade name of Pyrosnuff. Once the un-treated fabric (uncoated textile) has been treated, it becomes an article with no known adverse health effects.

Section 12 – Ecological Information

No known ecological hazards

Section 13 – Disposal Considerations

Disposal: Dispose according to all applicable Federal, State and/or Local regulations. For assistance contact a disposal, recycling and/or waste stream reduction facility.

Section 14 – Transport Information

DOT Shipping: Not hazardous by DOT classification, and UN Numbering. Non-regulatory

U.S. Department of Transportation Ground (49CFR)

Proper shipping name: Not regulated

Hazard class or division: None

Identification number: None

Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated

Hazard class or division: None

Identification number: None

Packing group: None

Section 15 – Regulatory Information

California Proposition 65: The finish applied on this fabric is a water, mildew and flame resistant coating. After the coating is applied and the fabric processed, the fabric is stable. The fabric may contain in small amounts of benzene, toluene, antimony compounds and copper compounds.

Section 16 – Other Information

Date Prepared: January 2014, Revision January 2017, Revision January 2020

Disclaimer: The information contained herein is believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

Buckeye Fabric Finishing developed this Safety Data Sheet (SDS) for the purpose of providing basic safety information to our customers concerning the fabric coated with our Pyrosnuff coating. Buckeye Fabric Finishing applies its proprietary Pyrosnuff coating to our customer's fabric and then delivers the coated fabric to you in rolls. The enclosed SDS applies to the coated fabric as supplied to you.

We understand that the coated fabric we supply you is often subjected to processing to make products which are then sold to your downstream customers. This processing may involve cutting, sewing, the installation of fasteners, grommets and other specialized features, and other activities. We are not involved in your processing or disposition of this material.

It is important to understand that our SDS is not prepared for the products that you manufacture and the processing and alterations you make could affect the overall physical and safety properties of the coated fabric. Thus, the SDS that we are supplying to you may not be applicable to your customers and other downstream users of the products that you manufacture. Only you can determine what SDS should be provided to your customers.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Form : Mixture
 Product Name : Real Cool Snoop
 Product Group : Blend

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Liquid leak detector to be used on external surfaces only. Optimum operating temperatures are between -65 °F and 200 °F (-54 °C and 93 °C).
 Use of the substance/mixture : For professional use only.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company

Swagelok Manufacturing Company, LLC
 29495 F.A. Lennon Drive
 Solon, Ohio 44139
 440-519-4000
www.swagelok.com

Manufacturer

Swagelok Manufacturing Company, LLC
 29495 F.A. Lennon Drive
 Solon, Ohio 44139
 440-519-4000
www.swagelok.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302
 Eye Irrit. 2 H319
 STOT RE 2 H373

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes serious eye irritation. May cause damage to organs (kidneys) through prolonged or repeated exposure.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Warning

Hazard statements (CLP) :

H302 - Harmful if swallowed.
 H319 - Causes serious eye irritation.
 H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure.

Precautionary statements (CLP) :

P260 - Do not breathe vapours, mist, or spray.
 P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves, protective clothing, and eye protection.
 P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P314 - Get medical advice/attention if you feel unwell.
 P330 - Rinse mouth.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P501 - Dispose of contents/container in accordance with local, regional, national,

Real Cool Snoop

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

and international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/information on ingredients

3.2. Mixture

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|--|------|---|
| Ethylene glycol | (CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 | < 60 | Acute Tox. 4 (Oral), H302 STOT RE 2, H373 |
| D-Glucopyranose, oligomeric, decyl octyl glycosides | (CAS No) 68515-73-1 (EC no) 500-220-1 | < 1 | Eye Dam. 1, H318 |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides | (CAS No) 110615-47-9 (EC no) 600-975-8 | < 1 | Skin Irrit. 2, H315 Eye Dam. 1, H318 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-aid measures after eye contact : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes serious eye irritation. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : Prolonged exposure may cause irritation.

Symptoms/injuries after skin contact : Prolonged exposure may cause skin irritation.

Symptoms/injuries after eye contact : Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion : This material is harmful orally and can cause adverse health effects or death in significant amounts. Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage.

Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not considered flammable but may burn at high temperatures.

Explosion hazard : Product is not explosive.

Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.

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Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

- Firefighting instructions : Use water spray or fog for cooling exposed containers.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid breathing (vapour, mist, spray). Avoid all contact with skin, eyes, or clothing.

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protection equipment (PPE).

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. See Section 13, Disposal Considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle in accordance with standard industrial practices, and ensure appropriate ventilation. Avoid all contact with skin, eyes, clothing. Do not release into the environment.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing vapours, mist, spray. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Avoid contact with skin, eyes and clothing.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible products : Strong acids, strong bases, strong oxidisers.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Liquid leak detector to be used on external surfaces only. Optimum operating temperatures are between -65 °F and 200 °F (-54 °C and 93 °C). For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Ethylene glycol (107-21-1) | | |
|----------------------------|---|-----------------------|
| EU | IOELV TWA (mg/m ³) | 52 mg/m ³ |
| EU | IOELV TWA (ppm) | 20 ppm |
| EU | IOELV STEL (mg/m ³) | 104 mg/m ³ |
| EU | IOELV STEL (ppm) | 40 ppm |
| Austria | MAK (mg/m ³) | 26 mg/m ³ |
| Austria | MAK (ppm) | 10 ppm |
| Austria | MAK Short time value (mg/m ³) | 52 mg/m ³ |
| Austria | MAK Short time value (ppm) | 20 ppm |

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Ethylene glycol (107-21-1) | | |
|-----------------------------------|--|---|
| Austria | OEL chemical category (AT) | Skin notation |
| Belgium | OEL chemical category (BE) | Skin, Skin notation |
| Bulgaria | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Bulgaria | OEL TWA (ppm) | 20 ppm |
| Bulgaria | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Bulgaria | OEL STEL (ppm) | 40 ppm |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 52 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (ppm) | 20 ppm |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³) | 104 mg/m ³ |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (ppm) | 40 ppm |
| Croatia | OEL chemical category (HR) | Skin notation |
| Cyprus | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Cyprus | OEL TWA (ppm) | 20 ppm |
| Cyprus | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Cyprus | OEL STEL (ppm) | 40 ppm |
| Cyprus | OEL chemical category (CY) | Skin-potential for cutaneous absorption |
| France | VLE (mg/m ³) | 104 mg/m ³ (indicative limit-vapour) |
| France | VLE (ppm) | 40 ppm (indicative limit-vapour) |
| France | VME (mg/m ³) | 52 mg/m ³ (indicative limit-vapour) |
| France | VME (ppm) | 20 ppm (indicative limit-vapour) |
| France | OEL chemical category (FR) | Risk of cutaneous absorption |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 26 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 10 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany | TRGS 900 chemical category | Skin notation |
| Gibraltar | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Gibraltar | OEL TWA (ppm) | 20 ppm |
| Gibraltar | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Gibraltar | OEL STEL (ppm) | 40 ppm |
| Gibraltar | OEL chemical category (GI) | Skin notation |
| Greece | OEL TWA (mg/m ³) | 125 mg/m ³ (vapour) |
| Greece | OEL TWA (ppm) | 50 ppm (vapour) |
| Greece | OEL STEL (mg/m ³) | 125 mg/m ³ (vapour) |
| Greece | OEL STEL (ppm) | 50 ppm (vapour) |
| USA ACGIH | ACGIH Ceiling (mg/m ³) | 100 mg/m ³ (aerosol only) |
| Italy | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Italy | OEL TWA (ppm) | 20 ppm |
| Italy | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Italy | OEL STEL (ppm) | 40 ppm |
| Italy | OEL chemical category (IT) | skin - potential for cutaneous absorption |
| Latvia | OEL TWA (mg/m ³) | 52 mg/m ³ |

Real Cool Snoop

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Ethylene glycol (107-21-1) | | |
|-----------------------------------|---|---|
| Latvia | OEL TWA (ppm) | 20 ppm |
| Latvia | OEL chemical category (LV) | skin - potential for cutaneous exposure |
| Spain | VLA-ED (mg/m ³) | 52 mg/m ³ (indicative limit value) |
| Spain | VLA-ED (ppm) | 20 ppm (indicative limit value) |
| Spain | VLA-EC (mg/m ³) | 104 mg/m ³ |
| Spain | VLA-EC (ppm) | 40 ppm |
| Spain | OEL chemical category (ES) | skin - potential for cutaneous exposure |
| Switzerland | VLE (mg/m ³) | 52 mg/m ³ |
| Switzerland | VLE (ppm) | 20 ppm |
| Switzerland | VME (mg/m ³) | 26 mg/m ³ |
| Switzerland | VME (ppm) | 10 ppm |
| Switzerland | OEL chemical category (CH) | Skin notation |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 52 mg/m ³ (fume) 10 mg/m ³ (droplets) |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ³) | 104 mg/m ³ |
| United Kingdom | WEL TWA (mg/m ³) | 10 mg/m ³ (particulates) 52 mg/m ³ (vapour) |
| United Kingdom | WEL TWA (ppm) | 20 ppm (vapour) |
| United Kingdom | WEL STEL (mg/m ³) | 104 mg/m ³ (vapour) 30 mg/m ³ (calculated-particulate) |
| United Kingdom | WEL STEL (ppm) | 40 ppm (vapour) |
| United Kingdom | WEL chemical category | Potential for cutaneous absorption |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 50 mg/m ³ |
| Czech Republic | OEL chemical category (CZ) | Potential for cutaneous absorption |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 26 mg/m ³ 10 mg/m ³ (vapour) |
| Denmark | Grænseværdie (langvarig) (ppm) | 10 ppm |
| Estonia | OEL TWA (mg/m ³) | 52 mg/m ³ (total concentration of aerosol and vapour) |
| Estonia | OEL TWA (ppm) | 20 ppm (total concentration of aerosol and vapour) |
| Estonia | OEL STEL (mg/m ³) | 104 mg/m ³ (total concentration of aerosol and vapour) |
| Estonia | OEL STEL (ppm) | 40 ppm (total concentration of aerosol and vapour) |
| Estonia | OEL chemical category (ET) | Skin notation |
| Finland | HTP-arvo (8h) (mg/m ³) | 50 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 20 ppm |
| Finland | HTP-arvo (15 min) | 100 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 40 ppm |
| Finland | OEL chemical category (FI) | Potential for cutaneous absorption |
| Hungary | AK-érték | 52 mg/m ³ |
| Hungary | CK-érték | 104 mg/m ³ |
| Hungary | OEL chemical category (HU) | Potential for cutaneous absorption |
| Ireland | OEL (8 hours ref) (mg/m ³) | 10 mg/m ³ (particulate) 52 mg/m ³ (vapour) |
| Ireland | OEL (8 hours ref) (ppm) | 20 ppm (vapour) |
| Ireland | OEL (15 min ref) (mg/m ³) | 104 mg/m ³ (vapour) |

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| Ethylene glycol (107-21-1) | | |
|-----------------------------------|--|--|
| Ireland | OEL (15 min ref) (ppm) | 40 ppm (particulate) |
| Ireland | OEL chemical category (IE) | Potential for cutaneous absorption |
| Lithuania | IPRV (mg/m ³) | 25 mg/m ³ (aerosol and vapour) |
| Lithuania | IPRV (ppm) | 10 ppm (aerosol and vapour) |
| Lithuania | TPRV (mg/m ³) | 50 mg/m ³ (aerosol and vapour) |
| Lithuania | TPRV (ppm) | 20 ppm (aerosol and vapour) |
| Lithuania | OEL chemical category (LT) | Skin notation |
| Luxembourg | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Luxembourg | OEL TWA (ppm) | 20 ppm |
| Luxembourg | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Luxembourg | OEL STEL (ppm) | 40 ppm |
| Luxembourg | OEL chemical category (LU) | Possibility of significant uptake through the skin |
| Malta | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Malta | OEL TWA (ppm) | 20 ppm |
| Malta | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Malta | OEL STEL (ppm) | 40 ppm |
| Malta | OEL chemical category (MT) | Possibility of significant uptake through the skin |
| Norway | Grenseverdier (AN) (mg/m ³) | 20 mg/m ³ (equal to the standard for nuisance dust-dust) 52 mg/m ³ (Total sum of limit values for both vapour and dust) |
| Norway | Grenseverdier (AN) (ppm) | 52 ppm (Total sum of limit values for both vapour and dust-total dust and vapour) |
| Norway | Grenseverdier (Korttidsverdi) (mg/m ³) | 52 mg/m ³ (Norm is based on the sum calculation for the total gas and particulate form of the substance-dust) |
| Norway | Grenseverdier (Korttidsverdi) (ppm) | 20 ppm (Norm is based on the sum calculation for the total gas and particulate form of the substance) |
| Norway | OEL chemical category (NO) | Skin notation |
| Poland | NDS (mg/m ³) | 15 mg/m ³ |
| Poland | NDSCh (mg/m ³) | 50 mg/m ³ |
| Romania | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Romania | OEL TWA (ppm) | 20 ppm |
| Romania | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Romania | OEL STEL (ppm) | 40 ppm |
| Romania | OEL chemical category (RO) | Skin notation |
| Slovakia | NPHV (priemerná) (mg/m ³) | 52 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 20 ppm |
| Slovakia | NPHV (Hraničná) (mg/m ³) | 104 mg/m ³ |
| Slovakia | OEL chemical category (SK) | Potential for cutaneous absorption |
| Slovenia | OEL TWA (mg/m ³) | 52 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 20 ppm |
| Slovenia | OEL STEL (mg/m ³) | 104 mg/m ³ |
| Slovenia | OEL STEL (ppm) | 40 ppm |
| Slovenia | OEL chemical category (SL) | Potential for cutaneous absorption |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 25 mg/m ³ (aerosol and vapour) |
| Sweden | nivågränsvärde (NVG) (ppm) | 10 ppm (aerosol and vapour) |

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Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Ethylene glycol (107-21-1) | | |
|----------------------------|---|---|
| Sweden | kortidsvärde (KTV) (mg/m ³) | 50 mg/m ³ (aerosol and vapour) |
| Sweden | kortidsvärde (KTV) (ppm) | 20 ppm (aerosol and vapour) |
| Sweden | OEL chemical category (SE) | Skin notation |
| Portugal | OEL TWA (mg/m ³) | 52 mg/m ³ (indicative limit value) |
| Portugal | OEL TWA (ppm) | 20 ppm (indicative limit value) |
| Portugal | OEL STEL (mg/m ³) | 104 mg/m ³ (indicative limit value) |
| Portugal | OEL STEL (ppm) | 40 ppm (indicative limit value) |
| Portugal | OEL - Ceilings (mg/m ³) | 100 mg/m ³ (aerosol only) |
| Portugal | OEL chemical category (PT) | A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure indicative limit value |

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal protective equipment : Gloves. Protective clothing. Protective goggles.



Materials for protective clothing : Chemically resistant materials and fabrics.

Hand protection : Wear protective gloves.

Eye protection : Chemical safety goggles.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other information : When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | : Liquid |
| Colour | : Colourless |
| Odour | : Neutral Odour |
| Odour threshold | : No data available |
| pH | : 6,0 - 7,5 |
| Evaporation rate | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 387 °F (197,22 °C) |
| Flash point | : > 230 °F (> 110 °C) Closed Cup Method |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Solubility | : Soluble in water |
| Relative Density | : 1.1 g/ml |
| Partition coefficient: n-octanol/water | : No data available |
| Viscosity | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |

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Explosive limits : No data available

9.2. Other information

VOC content : < 1 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidisers.

10.6. Hazardous decomposition products

Thermal decomposition generates: Carbon and nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

| Real Cool Snoop | |
|--|-------------------------|
| ATE CLP (oral) | 833,33 mg/kg bodyweight |
| D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1) | |
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| Ethylene glycol (107-21-1) | |
| LD50 oral | 4000 mg/kg |
| LD50 dermal rat | 10600 mg/kg |
| ATE CLP (oral) | 500,00 mg/kg bodyweight |

| | |
|--|---|
| Skin corrosion/irritation | : Not classified pH: 6,0 - 7,5 |
| Serious eye damage/irritation | : Causes serious eye irritation. pH: 6,0 - 7,5 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : May cause damage to organs (kidneys) through prolonged or repeated exposure. |
| Aspiration hazard | : Not classified |
| Symptoms/Injuries After Inhalation | : Prolonged exposure may cause irritation. |
| Symptoms/Injuries After Skin Contact | : Prolonged exposure may cause skin irritation. |
| Symptoms/Injuries After Eye Contact | : Contact causes severe irritation with redness and swelling of the conjunctiva. |
| Symptoms/Injuries After Ingestion | : This material is harmful orally and can cause adverse health effects or death in significant amounts. Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage. |
| Chronic Symptoms | : May cause damage to organs through prolonged or repeated exposure. |

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified.

D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)

| | |
|-------------|------------|
| LC50 fish 1 | 96,64 mg/l |
|-------------|------------|

D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9)

| | |
|-------------|---|
| LC50 fish 1 | 2,95 mg/l (Exposure time 96 h - Species: Brachydanio rerio [semi-static]) |
|-------------|---|

Ethylene glycol (107-21-1)

| | |
|-------------|---|
| LC50 fish 1 | 41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss) |
|-------------|---|

| | |
|----------------|---|
| EC50 Daphnia 1 | 46300 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
|----------------|---|

| | |
|-------------|--|
| LC50 fish 2 | 14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static]) |
|-------------|--|

12.2. Persistence and degradability

Real Cool Snoop

| | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |
|-------------------------------|------------------|

12.3. Bioaccumulative potential

Real Cool Snoop

| | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |
|---------------------------|------------------|

Ethylene glycol (107-21-1)

| | |
|---------|-------|
| Log Pow | -1,93 |
|---------|-------|

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer. Do not flush into surface water or sewer system.

Waste disposal recommendations : Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional information : Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IMDG | IATA | ADN | RID |
|---|-------------------|-------------------|-------------------|-------------------|
| 14.1. UN number | | | | |
| Not regulated for transport | | | | |
| 14.2. UN proper shipping name | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.4. Packing group | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | | | |
| Dangerous for the | Dangerous for the | Dangerous for the | Dangerous for the | Dangerous for the |

Real Cool Snoop

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| ADR | IMDG | IATA | ADN | RID |
|------------------|---|------------------|------------------|------------------|
| environment : No | environment : No Marine pollutant : No | environment : No | environment : No | environment : No |

14.6. Special precautions for user

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

| | |
|--|---|
| 3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 | D-Glucopyranose, oligomeric, decyl octyl glycosides - Ethylene glycol |
| 3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 | Real Cool Snoop - D-Glucopyranose, oligomeric, decyl octyl glycosides - Ethylene glycol |

Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances.

Ethylene glycol (107-21-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

VOC content : < 1 %

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Indication of changes:

| Section | Section Header | Change | Date Changed |
|---------|----------------|--------|--------------|
|---------|----------------|--------|--------------|

Revision date : 01/03/2016

Data sources : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of H- and EUH-statements:

| | |
|---------------------|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT RE 2 | Specific target organ toxicity — Repeated exposure, Category 2 |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H373 | May cause damage to organs through prolonged or repeated exposure |

EU GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



SAFETY DATA SHEET

1. Identification

Product identifier SCRUBS® Hand Cleaner Towels

Other means of identification

Part Number 42201, 42210, 42225, 42230, 42232, 42256, 42260, 42272, 42274, 42280

Recommended use A deep cleaning hand cleaner towel designed for removing heavy dirt, oil and greases from hands.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ITW Pro Brands

Address 805 E. Old 56 Highway
Olathe, KS 66061

Country (U.S.A.)

Tel: +1 800-443-9536

In Case of Emergency 1-800-535-5053 (Infotrac)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Alcohols, C12-15, ethoxylated | | 68131-39-5 | 1 - 3 |
| Distillates Petroleum Hydrotreated Light | | 64742-47-8 | 1 - 3 |
| d-limonene | | 5989-27-5 | 1 - 3 |
| Neopentyl Glycol | | 126-30-7 | 0.1 - 1 |
| Phenoxyethanol | | 122-99-6 | 0.1 - 1 |
| Sodium Dodecanol Sulfosuccinate | | 577-11-7 | 0.1 - 1 |

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

| | |
|---|--|
| Eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Direct contact with eyes may cause temporary irritation. |
| Indication of immediate medical attention and special treatment needed | Treat symptomatically. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| | |
|--|---|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | No unusual fire or explosion hazards noted. |

6. Accidental release measures

| | |
|--|--|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Mechanically pick up material and place in a proper container for disposal. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

| | |
|---|--|
| Precautions for safe handling | Avoid prolonged exposure. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA Components

| | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | PEL | 5 mg/m ³ | Oil mist |

ACGIH Components

| | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | TWA | 5 mg/m ³ | Oil mist |

| | |
|---|---|
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Colorless-blue / white

Odor Citrus

Odor threshold Not available.

pH 6

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Miscible.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Specific gravity 0.995

VOC 0 % per US State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

| | |
|---|---|
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

| Components | Species | Test Results |
|---|---------|-------------------------|
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rat | > 2000 mg/kg, 24 Hours |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| <i>Vapor</i> | | |
| LC50 | Rat | > 0.1 mg/l, 8 Hours |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| d-limonene (CAS 5989-27-5) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | > 2000 mg/kg |
| Neopentyl Glycol (CAS 126-30-7) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | > 6400 mg/kg |
| Phenoxyethanol (CAS 122-99-6) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2200 mg/kg, 24 Hours |
| Oral | | |
| LD50 | Rat | 1400 mg/kg |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 10000 mg/kg, 24 Hours |

| | |
|---|--|
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | |
| d-limonene (CAS 5989-27-5) | 3 Not classifiable as to carcinogenicity to humans. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) | |
| Not listed. | |
| US. National Toxicology Program (NTP) Report on Carcinogens | |
| Not listed. | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | Prolonged inhalation may be harmful. |
| Further information | This product has no known adverse effect on human health. |

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test Results |
|---|---------|--|
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Ceriodaphnia dubia) 0.37 - 0.43 mg/l, 48 hours |
| Fish | LC50 | Channel catfish (Ictalurus punctatus) 1.04 - 1.39 mg/l, 96 hours |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | | |
| Aquatic | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.9 mg/l, 96 hours |
| d-limonene (CAS 5989-27-5) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) 69.6 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours |
| Phenoxyethanol (CAS 122-99-6) | | |
| Aquatic | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 337 - 352 mg/l, 96 hours |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7) | | |
| Aquatic | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 20 - 40 mg/l, 96 hours |

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

| | |
|----------------|-------|
| d-limonene | 4.232 |
| Phenoxyethanol | 1.16 |

Mobility in soil Not established.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

General information This material is not regulated by any mode of transportation.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04-11-2019

Revision date 06-03-2019

Version # 02

Disclaimer

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Accidental release measures: Methods and materials for containment and cleaning up
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
HazReg Data: International Inventories
GHS: Classification



SAFETY DATA SHEET

1. Identification

Product identifier SCRUBS® Hand Cleaner Towels

Other means of identification
Part Number 42201, 42210, 42225, 42230, 42232, 42256, 42260, 42272, 42274, 42280

Recommended use A deep cleaning hand cleaner towel designed for removing heavy dirt, oil and greases from hands.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information
Manufacturer
Company name ITW Pro Brands
Address 805 E. Old 56 Highway
Olathe, KS 66061
Country (U.S.A.)
Tel: +1 800-443-9536
In Case of Emergency 1-800-535-5053 (Infotrac)

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements
Hazard symbol None.
Signal word None.
Hazard statement The mixture does not meet the criteria for classification.
Precautionary statement
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Alcohols, C12-15, ethoxylated | | 68131-39-5 | 1 - 3 |
| Distillates Petroleum Hydrotreated Light | | 64742-47-8 | 1 - 3 |
| d-limonene | | 5989-27-5 | 1 - 3 |
| Neopentyl Glycol | | 126-30-7 | 0.1 - 1 |
| Phenoxyethanol | | 122-99-6 | 0.1 - 1 |
| Sodium Dodecanol Sulfosuccinate | | 577-11-7 | 0.1 - 1 |

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

| | |
|---|--|
| Eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Direct contact with eyes may cause temporary irritation. |
| Indication of immediate medical attention and special treatment needed | Treat symptomatically. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| | |
|--|---|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | No unusual fire or explosion hazards noted. |

6. Accidental release measures

| | |
|--|--|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Mechanically pick up material and place in a proper container for disposal. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

| | |
|---|--|
| Precautions for safe handling | Avoid prolonged exposure. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA Components

| | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | PEL | 5 mg/m ³ | Oil mist |

ACGIH Components

| | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | TWA | 5 mg/m ³ | Oil mist |

| | |
|---|---|
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Colorless-blue / white

Odor Citrus

Odor threshold Not available.

pH 6

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Miscible.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Specific gravity 0.995

VOC 0 % per US State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

| | |
|---|---|
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

| Components | Species | Test Results |
|---|---------|-------------------------|
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rat | > 2000 mg/kg, 24 Hours |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| <i>Vapor</i> | | |
| LC50 | Rat | > 0.1 mg/l, 8 Hours |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| d-limonene (CAS 5989-27-5) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | > 2000 mg/kg |
| Neopentyl Glycol (CAS 126-30-7) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | > 6400 mg/kg |
| Phenoxyethanol (CAS 122-99-6) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2200 mg/kg, 24 Hours |
| Oral | | |
| LD50 | Rat | 1400 mg/kg |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 10000 mg/kg, 24 Hours |

| | |
|---|--|
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | |
| d-limonene (CAS 5989-27-5) | 3 Not classifiable as to carcinogenicity to humans. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) | |
| Not listed. | |
| US. National Toxicology Program (NTP) Report on Carcinogens | |
| Not listed. | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | Prolonged inhalation may be harmful. |
| Further information | This product has no known adverse effect on human health. |

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test Results |
|---|---------|--|
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Ceriodaphnia dubia) 0.37 - 0.43 mg/l, 48 hours |
| Fish | LC50 | Channel catfish (Ictalurus punctatus) 1.04 - 1.39 mg/l, 96 hours |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | | |
| Aquatic | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.9 mg/l, 96 hours |
| d-limonene (CAS 5989-27-5) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) 69.6 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours |
| Phenoxyethanol (CAS 122-99-6) | | |
| Aquatic | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 337 - 352 mg/l, 96 hours |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7) | | |
| Aquatic | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 20 - 40 mg/l, 96 hours |

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

| | |
|----------------|-------|
| d-limonene | 4.232 |
| Phenoxyethanol | 1.16 |

Mobility in soil Not established.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

General information This material is not regulated by any mode of transportation.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04-11-2019

Revision date 06-03-2019

Version # 02

Disclaimer

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Accidental release measures: Methods and materials for containment and cleaning up
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
HazReg Data: International Inventories
GHS: Classification



SAFETY DATA SHEET

1. Identification

Product identifier SCRUBS® In-A-Bucket Hand Cleaner Towels

Other means of identification

Part Number 42201, 42210, 42230, 42232, 42256, 42260, 42272, 42274, 42280

Recommended use A cleaner wipe designed for removing dirt and grease from hands.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ITW Pro Brands

Address 805 E. Old 56 Highway
Olathe, KS 66061

Country (U.S.A.)

Tel: +1 800-443-9536

In Case of Emergency 1-800-535-5053 (Infotrac)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Not available.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Distillates Petroleum Hydrotreated Light | | 64742-47-8 | 1 - 3 |
| Sodium Dodecanol Sulfosuccinate | | 577-11-7 | 0.5 - 1 |
| Dimethyl Glutarate | | 1119-40-0 | < 0.5 |
| D-limonene | | 5989-27-5 | < 0.5 |
| Phenoxyethanol | | 122-99-6 | < 0.5 |

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

| | |
|---|--|
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Direct contact with eyes may cause temporary irritation. |
| Indication of immediate medical attention and special treatment needed | Treat symptomatically. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| | |
|--|---|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | No unusual fire or explosion hazards noted. |

6. Accidental release measures

| | |
|--|---|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Mechanically pick up material and place in a proper container for disposal.</p> |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

| | |
|---|--|
| Precautions for safe handling | Avoid prolonged exposure. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA Components

| Components | Type | Value | Form |
|---|------|---------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | PEL | 5 mg/m3 | Oil mist |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value | Form |
|------------------------|------|----------|----------------------|
| Glycerin (CAS 56-81-5) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |

| ACGIH Components | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | TWA | 5 mg/m ³ | Oil mist |

| US. Workplace Environmental Exposure Level (WEEL) Guides Components | Type | Value | Form |
|---|------|----------------------|----------|
| Propylene Glycol (CAS 57-55-6) | TWA | 10 mg/m ³ | Aerosol. |

| | |
|--|---|
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| Individual protection measures, such as personal protective equipment | |
| Eye/face protection | Wear safety glasses with side shields (or goggles). |
| Skin protection | |
| Hand protection | Wear appropriate chemical resistant gloves. |
| Other | Wear suitable protective clothing. |
| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

9. Physical and chemical properties

Appearance

| | |
|-----------------------|------------------------|
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Colorless-blue / white |

Odor Citrus

Odor threshold Not available.

pH 6

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Miscible.

Partition coefficient (n-octanol/water) Not available.

| | |
|----------------------------------|---|
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| Specific gravity | 0.995 |
| VOC | 0 % per US State and Federal Consumer Product Regulations |

10. Stability and reactivity

| | |
|---|--|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Not available. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

| Components | Species | Test Results |
|---|---------|-----------------------------------|
| 3-iodo-2-propynyl-butylcarbamate (CAS 55406-53-6) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Oral | | |
| LD50 | Rat | 1.1 g/kg |
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rat | > 2000 mg/kg, 24 Hours |
| Inhalation | | |
| <i>Vapor</i> | | |
| LC50 | Rat | > 100 mg/m ³ , 6 Hours |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| <i>Vapor</i> | | |
| LC50 | Rat | > 0.1 mg/l, 8 Hours |

| Components | Species | Test Results |
|---|--|-------------------------|
| Oral LD50 | Rat | > 5000 mg/kg |
| D-limonene (CAS 5989-27-5) | | |
| Acute | | |
| Oral LD50 | Rat | > 2000 mg/kg |
| Glycerin (CAS 56-81-5) | | |
| Acute | | |
| Oral LD50 | Rat | 18000 mg/kg |
| Phenoxyethanol (CAS 122-99-6) | | |
| Acute | | |
| Dermal LD50 | Rabbit | > 2200 mg/kg, 24 Hours |
| Oral LD50 | Rat | 1400 mg/kg |
| Propylene Glycol (CAS 57-55-6) | | |
| Acute | | |
| Dermal LD50 | Rabbit | > 2000 mg/kg, 24 Hours |
| Oral LD50 | Rat | 22000 mg/kg |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7) | | |
| Acute | | |
| Dermal LD50 | Rabbit | > 10000 mg/kg, 24 Hours |
| Oral LD50 | Rat | > 1300 mg/kg |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. | |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Skin sensitization | This product is not expected to cause skin sensitization. | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. | |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| D-limonene (CAS 5989-27-5) | 3 Not classifiable as to carcinogenicity to humans. | |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) | | |
| Not listed. | | |
| US. National Toxicology Program (NTP) Report on Carcinogens | | |
| Not listed. | | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. | |
| Specific target organ toxicity - single exposure | Not classified. | |
| Specific target organ toxicity - repeated exposure | Not classified. | |
| Aspiration hazard | Not available. | |
| Chronic effects | Prolonged inhalation may be harmful. | |

Further information

This product has no known adverse effect on human health.

12. Ecological information**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test Results |
|---|---------|--|
| 3-iodo-2-propynyl-butylcarbamate (CAS 55406-53-6) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 0.05 - 0.089 mg/l, 96 hours |
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (Ceriodaphnia dubia) 0.37 - 0.43 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 0.96 - 1.4 mg/l, 96 hours |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Fish | LC50 | Bluegill (Lepomis macrochirus) 2.2 mg/l, 4 days |
| D-limonene (CAS 5989-27-5) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) 69.6 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours |
| Glycerin (CAS 56-81-5) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 51000 - 57000 mg/l, 96 hours |
| Phenoxyethanol (CAS 122-99-6) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 337 - 352 mg/l, 96 hours |
| Propylene Glycol (CAS 57-55-6) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (Daphnia magna) > 10000 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 710 mg/l, 96 hours |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 20 - 40 mg/l, 96 hours |

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential**Partition coefficient n-octanol / water (log Kow)**

| | |
|------------------|-------|
| D-limonene | 4.57 |
| Glycerin | -1.76 |
| Phenoxyethanol | 1.16 |
| Propylene Glycol | -0.92 |

Mobility in soil

Not established.

Other adverse effects

None known.

13. Disposal considerations

| | |
|--|--|
| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

General information This material is not regulated by any mode of transportation.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Glycerin (CAS 56-81-5)

Other Flavoring Substances with OSHA PEL's

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

3-iodo-2-propynyl-butylcarbamate (CAS 55406-53-6)

Glycerin (CAS 56-81-5)
Propylene Glycol (CAS 57-55-6)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Industrial Chemicals (AICIS) | No |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-05-2021

Version # 01

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

MATERIAL SAFETY DATA SHEET

MSDS # 27000

Section One: Identification

Sanford, L.P.
2707 Butterfield Road
Oak Brook, IL 60523 USA
800-323-0749 or 630-481-2000

EMERGENCY MEDICAL NUMBER:

888-786-0972

Product Name: Sharpie Accent Highlighters – Tank, Generation, Pocket, Mini, Grip, Liquid Pen, Jumbo, Retractable, and Bladetiip
Colors: All Colors

NewellRubbermaid, Inc (Sanford L.P.) is a member of The Art and Creative Materials Institute, Inc. This product is certified by the Institute to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236 and is labeled with the AP Non Toxic Seal. Products bearing the AP Approved Product Seal of The Art and Creative Materials Institute, Inc. are certified in a program of toxicological evaluation by a medical expert, subject to review by the Institute Toxicology Advisory Board, to contain no materials in sufficient quantities to be toxic or injurious to humans, or to cause acute toxicity or chronic health problems.

Section Two: Hazard Identification

This product is not hazardous under normal use conditions. Not for use on skin. Do not ingest. Avoid contact with eyes.

Section Three: Composition

Water, glycerol (56-81-5), glycols (111-46-6, 57-55-6, 25322-68-3), dyes, additives

Section Four: First Aid Measures

Inhalation: Not hazardous by inhalation.
Skin Contact: Wash skin with soap and water.
Eye Contact: Rinse eye with water for at least 15 min. If irritatiinn persists seek medical attention.
Ingestion: Seek medical attention.

Section Five: Fire Fighting Measures

Flash Point:N/A
Flammability Limits (% by volume): Lower: Not explosive Upper: Not explosive
Extinguishing Media: As appropriate for surrounding area
Special Fire Fighting Measures: None
Unusual Fire and Explosion Hazards: None

Section Six: Accidental Release Measures

In Case of Spill or Accidental Release: Wipe up with absorbent material

Section Seven: Handling and Storage

Handling: Do not shake marker
Storage: Keep cap on marker when not in use

Section Eight: Exposure Controls and Personal Protection

Eye Protection: None under normal use conditions.
Clothing: None under normal use conditions.
Respirator: None under normal use conditions.

MATERIAL SAFETY DATA SHEET

MSDS # 27000

Ventilation: None under normal use conditions.

Section Nine: Physical and Chemical Properties

Boiling Point: N/A
 Specific Gravity: N/A
 Vapor Pressure: Not determined
 Solubility in Water: Soluble
 Evaporation Rate: Not determined
 Appearance/Odor: Colored ink; no odor

Section Ten: Stability and Reactivity

Stability: Stable
 Conditions to Avoid: None known
 Chemical Incompatibility: None known
 Hazardous Decomposition: None known
 Hazardous Polymerization: Will not occur

Section Eleven: Toxicological Information

See Section Two: Hazard Identification for any hazards

Section Twelve: Ecological Information

Not available

Section Thirteen: Disposal Considerations

Dispose in accordance with Federal, State, and Local Regulations.

Section Fourteen: Transport Information

DOT: Not Available

Section Fifteen: Regulatory Information

TSCA: The product listed on this Material Safety Data Sheet is not listed on the Toxic Substances Control Act Inventory. All ingredients used to manufacture this product are listed on the TSCA Inventory

Section Sixteen: Other Information

| HMIS Code | |
|---------------------|-----|
| Health | N/A |
| Flammability | N/A |
| Reactivity | N/A |
| Personal Protection | N/A |

NewellRubbermaid, Inc (Sanford L.P) has been advised by Counsel that the OSHA Hazard Communication Standard and the Health Canada Workplace Hazardous Materials Information Standard do not apply to the product described in this Material Safety Data Sheet. The reasons for the exemptions are contained in 29 CFR 1910.1200(b)(6)(ix) as amended Sept 14, 2009 per the Code of Federal Regulations and also Canadian Hazardous Products Act part 12 section (f) as amended June 1, 2009. The information contained in this MSDS is forwarded to you for your information, but is not meant to imply that the product is covered by nor is this MSDS meant to comply with all requirements of the hazard communication standards.

0=Minimal / 4 = Severe

Section One: Identification

Newell Rubbermaid, Inc. (Sanford L.P.)
2707 Butterfield Road
Oak Brook, IL 60523 USA
800-323-0749 or 630-481-2000

EMERGENCY MEDICAL NUMBER:

888-786-0972

Product Name: Sharpie Fine Point Marker, Sharpie Ultra Fine Point Marker, Sharpie Extra Fine Marker, Sharpie Chisel Tip Marker, Sharpie Twin Tip Marker, Super Sharpie Marker, Super Sharpie Twin Tip Marker, Sharpie Mini Fine Point Marker, Sharpie Micro Marker, Sharpie Grip Marker, Sharpie Retractable Fine Point Marker, Sharpie Magnum Marker, Sharpie King Size Marker, Sharpie Liquid Tip Marker, Sharpie Premium, Sharpie CD Marker, Sharpie Pro, Sharpie Pro King Size, Sharpie Pro Magnum, Sharpie Aluminum Barrel, Sharpie Brush Tip Marker, Esterbrook by Sharpie.

Colors: All Colors

NewellRubbermaid, Inc (Sanford L.P.) is a member of The Art and Creative Materials Institute, Inc. This product is certified by the Institute to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236 and is labeled with the AP Non Toxic Seal. Products bearing the AP Approved Product Seal of The Art and Creative Materials Institute, Inc. are certified in a program of toxicological evaluation by a medical expert, subject to review by the Institute Toxicology Advisory Board, to contain no materials in sufficient quantities to be toxic or injurious to humans, or to cause acute toxicity or chronic health problems.

Section Two: Hazard Identification

Not Hazardous under normal use conditions. Not for use on skin. Do not ingest. Contact with eyes may cause irritation.

Section Three: Composition

: Butanol (71-36-3), Propanol (71-23-8), Diacetone Alcohol (123-42-2), Ethanol (64-17-5), pigments, dyes, additives

Section Four: First Aid Measures

Inhalation: Remove source of irritation. If symptoms persist seek medical attention

Skin Contact: Wash with soap and water. If irritation persists seek medical attention.

Eye Contact: Rinse eyes with water, if irritation persists seek medical attention.

Ingestion: If symptoms occur seek medical attention.

Section Five: Fire Fighting Measures

Flash Point: N/A

Extinguishing Media: As appropriate for surrounding area.

Special Fire Fighting Measures: N/A

Hazardous combustion products: N/A

Section Six: Accidental Release Measures

In Case of Spill or Accidental Release: Wipe up with absorbent material.

Section Seven: Handling and Storage

Handling: Do not shake marker.

Storage: Keep cap on marker when not in use.

Section Eight: Exposure Controls and Personal Protection

Eye Protection: None under normal use conditions.

Clothing: None under normal use conditions.

Respirator: None under normal use conditions.

MATERIAL SAFETY DATA SHEET

MSDS # 3000

Section Nine: Physical and Chemical Properties

Boiling Point: N/A
 Specific Gravity: N/A
 Vapor Pressure: N/A
 Solubility in Water: N/A
 Evaporation Rate: N/A
 Appearance/Odor: Marker/Alcohol (ink)

Section Ten: Stability and Reactivity

Stability: N/A
 Conditions to Avoid: Avoid exposure to heat, flame or other sources of ignition.
 Chemical Incompatibility: N/A
 Hazardous Polymerization: N/A.

Section Eleven: Toxicological Information

See Section Two: Hazard Identification for any hazards

Section Twelve: Ecological Information

Not available

Section Thirteen: Disposal Considerations

Dispose of in accordance with all Federal, State, and Local Regulations.

Section Fourteen: Transport Information

DOT: Not available
 IATA: Not available
 IMO: Not available

Section Fifteen: Regulatory Information

United States: All components in this product are listed on or exempt from reporting under the Federal Toxic Substances Control Act (TSCA).

Section Sixteen: Other Information

| HMIS Code | |
|---------------------|-----|
| Health | N/A |
| Flammability | N/A |
| Reactivity | N/A |
| Personal Protection | N/A |

0=Minimal / 4 = Severe

NewellRubbermaid, Inc has been advised by Counsel that the OSHA Hazard Communication Standard and the Health Canada Workplace Hazardous Materials Information Standard do not apply to the Sanford Product described in this Material Safety Data Sheet. The reasons for the exemptions are contained in 29 CFR 1910.1200(b)(6)(ix) as amended Sept 14, 2009 per the Code of Federal Regulations and also Canadian Hazardous Products Act part 12 section (f) as amended June 1, 2009. The information contained in this MSDS is forwarded to you for your information, but is not meant to imply that the product is covered by nor is this MSDS meant to comply with all requirements of the hazard communication standards.

**KANO LABORATORIES,
INC. SAFETY DATA SHEET**

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: SILIKROIL AEROSOL

Product Use: Penetrant/Lubricant for Industrial Use

Manufacturer: Kano Laboratories, Inc.
1000 E. Thompson Lane
Nashville, TN 37211

Emergency Phone Number: Chemtrec 1 (800) 424-9300

Manufacturer Phone Number: 615-833-4101

Website: www.kanolabs.com

SDS Date of Preparation: January 10, 2020

SECTION 2: HAZARDS IDENTIFICATION

GHS / HAZCOM 2012 Classification:

| Health | Physical |
|--|--|
| Skin Irritation Category 2 Eye Irritation Category 2A Specific Target Organ Toxicity – Single Exposure Category 3 CNS) Aspiration Hazard Category 1 Skin Sensitization Category 1 | Flammable Aerosol Category 2 Gas Under Pressure: Compressed Gas |

Label Elements

Danger!



Flammable aerosol.

Contains gas under pressure; may explode if heated. Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container. Do not pierce or burn, even after use.

Avoid breathing mist, vapors or spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection.

IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER if you feel unwell.

In case of fire: Use carbon dioxide, dry chemical or foam to extinguish.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Store in a well-ventilated place.

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|---|--------------------------|-------|
| LVP Aliphatic Hydrocarbon | 64742-47-8 | 30-60 |
| Severely Hydrotreated Heavy Petroleum Distillates | 64742-52-5 64742-53-6 | 30-60 |
| Diisobutyl Ketone | 108-83-8 | 7-13 |
| Proprietary Additive | Proprietary | 5-10 |
| Aliphatic Alcohol #1 | 123-42-2 | 1-<3 |
| Aliphatic Alcohol #2 | 78-83-1 | 1-<3 |
| Carbon Dioxide Propellant | 124-38-9 | 1-5 |

The exact percentage has been withheld as a trade secret or is a variation in formula.

SECTION 4: FIRST AID MEASURES

Eye: Rinse thoroughly with water for several holding the eye lids open to be sure the material is washed out. Get medical attention if irritation develops or persists.

Skin: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use.

Inhalation: Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if symptoms develop.

Ingestion: DO NOT induce vomiting. Keep the victim calm and warm. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

Most important symptoms and effects, acute and delayed: May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, nausea and vomiting. Harmful or fatal if swallowed. Aspiration into the lungs during ingestion or vomiting may cause lung damage. May cause an allergic skin reaction.

Indication of immediate medical attention and special treatment, if needed: If swallowed, get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Use carbon dioxide, dry chemical or foam. Water may be ineffective but can be used to cool containers and structures.

Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 120°F may cause cans to burst. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

Never use welding or cutting torch on or near containers (even empty) because product can ignite explosively. Combustion products may be hazardous: Oxides of carbon, organic compounds, smoke and fumes.

Special Protective Equipment and Precautions for Fire-fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Protect against bursting cans.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Ventilate the area with explosion-proof equipment.

Environmental precautions: Avoid release to the environment. Report spills and releases as required to appropriate authorities.

Methods and Materials for Containment and Cleaning up: Place leaking can in a pail or pan in a well-ventilated area until the pressure has been released. Cover liquid with an inert absorbent material and collect into an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash exposed skin thoroughly with soap and water after use. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Do not cut, braze, solder, grind or weld on or near containers. Contents under pressure. Do not puncture or incinerate container.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well ventilated area at temperatures below 120°F. Do not store in direct sunlight. Store as a Level 3 aerosol.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|--|--|
| LVP Aliphatic Hydrocarbon | 200 ppm TWA ACGIH TLV (as total hydrocarbon vapor) |
| Severely Hydrotreated Heavy Petroleum Distillates (as mineral oil) | 5 mg/m ³ TWA OSHA PEL 5 mg/m ³ TWA ACGIH TLV (inhalable fraction) |
| Diisobutyl Ketone | 50 ppm TWA OSHA PEL 25 ppm TWA ACGIH TLV |
| Proprietary Additive | None Established |
| Aliphatic Alcohol #1 | 50 ppm OSHA TWA PEL- 50 ppm TWA ACGIH TLV |
| Aliphatic Alcohol #2 | 100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV |
| Carbon Dioxide Propellant | 5000 ppm TWA OSHA PEL 5000 ppm TWA ACGIH TLV 30000 ppm STEL ACGIH TLV |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain concentrations below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

Personal Protective Equipment:

Respiratory Protection: If the exposure limits listed above are exceeded, a NIOSH approved respirator with

1/10/2020

organic vapor cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Hand protection: Impervious gloves are recommended when needed to avoid skin contact.

Eye Protection: Chemical safety goggles recommended.

Skin Protection: Impervious clothing as required to prevent skin contact and contamination of personal clothing.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--|----------------------------------|---|
| Appearance: | Slightly reddish liquid packaged as an aerosol | Odor: | Solvent |
| Odor Threshold: | Not available | pH: | Not available |
| Melting/Freezing Point: | Not available | Boiling Point/Range: | Not available |
| Flash Point: | 132°F (55.5°C) TOC | Evaporation Rate: | Not available |
| Flammability: (Solid, Gas) | Not applicable | Flammability Limits: | 10.9% (aliphatic alcohol #2) LEL: 0.7% (light petroleum distillates) |
| Vapor Pressure: | Not available | Vapor Density: | Not available |
| Relative Density: | 0.8596 | Solubilities: | Negligible in Water |
| Partition Coefficient: (N-Octanol/Water) | Not available | Autoignition Temperature: | Not available |
| Decomposition Temperature: | Not available | Viscosity: | Not available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: None known.

Chemical Stability: Stable under normal conditions of storage or use.

Possibility of Hazardous Reactions: None known.

Conditions to avoid: Avoid heat, sparks, flames and all other sources of ignition.

Incompatible Materials: Avoid strong oxidizing agents, reducing agents, acids and bases.

Hazardous decomposition products: Combustion will produce oxides of carbon, acetone, acrid fumes and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause eye irritation with redness, tearing and stinging.

Skin: May cause irritation with redness, rash, swelling. Prolonged or repeated contact may result in defatting and dermatitis. Repeated skin contact may cause sensitization (allergic skin reaction) in some individuals.

Inhalation: Inhalation of vapors or mists may cause mucous membrane and upper respiratory tract irritation and central nervous system depression. Symptoms may include coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea, fatigue and unconsciousness.

Ingestion: Ingestion is an unlikely route of exposure for aerosol products. Swallowing may cause gastrointestinal irritation with abdominal pain, nausea, vomiting and diarrhea and central nervous system depression with symptoms

including headache, dizziness, intoxication, weakness, nausea, and vomiting. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

Chronic Hazards: None known.

Carcinogen Status: None of the components of this product at greater than 0.1% are listed as carcinogens by OSHA, IARC or NTP.

Acute toxicity: Toxicological testing has not been performed on this product as a mixture.

LVP Aliphatic Hydrocarbon: Oral rat LD50 > 5000 mg/kg; Dermal rat LD50 > 5000 mg/kg Inhalation rat LC50 > 2.18 mg/L/4 hr.

Severely Hydrotreated Petroleum Distillates: Oral rat LD50 >5000 mg/kg, Inhalation rat LC50 >5.28 mg/L/4 hr, Dermal rabbit LD50 >2000 mg/kg

Proprietary Additive: Oral rat LD50 3200 mg/kg; Dermal rabbit LD50 5000 mg/kg

Diisobutyl Ketone: Oral rat LD50 5233 mg/kg; Dermal rat LD50 > 2000 mg/kg; Inhalation rat LC50 14.5 mg/L/4 hr.

Aliphatic Alcohol #1: Oral rat LD50 3002 mg/kg; Dermal rat LD50 > 1875 mg/kg; Inhalation rat LC50 > 7.6 mg/L/4 hr.

Aliphatic Alcohol #2: Oral rat LD50 > 2830 mg/kg; Inhalation rat LC50 24.6 mg/L/4 hr.; Dermal rabbit LD50 > 2000 mg/kg

Carbon Dioxide: Inhalation rat LC50 167857 ppm/4 hr

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: No toxicity data available for the product.

LVP Aliphatic Hydrocarbon: 96 hr. LC50 Pimephales promelas > 100 mg/L; 48 hr. EC50 daphnia magna > 1000 mg/L; 72 hr. EC50 Pseudokirchnerella subcapitata > 100 mg/L

Severely Hydrotreated Petroleum Distillates: 96 hr LL50 Oncorhynchus mykiss 2.5 mg/kg, 48 hr EL50 daphnia magna 1.4 mg/L, 72 hr EL50 Pseudokirchnerella subcapitata 1.3 mg/L

Proprietary Ingredient: 48 hr. LC50 daphnia magna 17-28 mg/L

Diisobutyl Ketone: 96 hr. LC50 Oncorhynchus mykiss 30 mg/L; 48 hr. EC50 daphnia magna 37.2 mg/L, 72 hr.

Aliphatic Alcohol #1: 96 hr. LC50 Oryzias latipes >100 mg/L; 48 hr. EC50 daphnia magna >1000 mg/L; 72 hr. EC50 Pseudokirchnerella subcapitata >1000 mg/L

Aliphatic Alcohol #2: 96 hr LC50 Pimephales promelas 1430 mg/L; 48 hr EC50 daphnia pulex 1100 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata 1799 mg/L

Carbon Dioxide: 96 hr LC50 Oncorhynchus mykiss 35 mg/L

Persistence and Degradability: Aliphatic Alcohol #1 and Aliphatic Alcohol #2 are readily biodegradable.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL INFORMATION

Disposal instructions: Dispose of product in accordance with all local, state/provincial and federal regulations. Do not puncture or incinerate.

Contaminated packaging: Offer empty packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

| | UN Number | Proper shipping name | Hazard Class | Packing Group | Environmental Hazard |
|----------------------------|-----------|---------------------------------------|--------------|---------------|----------------------|
| DOT / 49 CFR Ground | | Limited Quantity | | | |
| DOT Air | UN1950 | Aerosols, Flammable, Limited Quantity | 2.1 | None | None |
| IMDG | UN1950 | Aerosols, Limited Quantity | 2.1 | None | None |
| IATA | UN1950 | Aerosols, Flammable, Limited Quantity | 2.1 | None | None |

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable
– product is transported only in packaged form.

Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product has a Reportable Quantity (RQ) of 166,666 lbs. (based on the RQ for Aliphatic alcohol #2 of 5,000 lbs present at 3%) maximum. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

STATE REPORTING REGULATIONS:

Massachusetts Right To Know: Diacetone Alcohol 123-42-2, Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9

New Jersey Right To Know: Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9, Pine Oil 8002-09-3

Pennsylvania Right To Know: Diacetone Alcohol 123-42-2, Isbutanol 78-83-1, Diisobutyl Ketone 108-83-8, Carbon Dioxide 124-38-9

SARA TITLE III:

Hazard Category for Section 311/312: Refer to Section 2 for the OSHA Hazard Classification

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None.

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

Canadian DSL: All of the components of this product are listed on the Canadian Domestic Substances List

SECTION 16: OTHER INFORMATION

HMIS Ratings: Health - 2

Flammability - 4

Physical Hazard - 0

NFPA Ratings: Health - 1

Flammability - 2

Instability - 0

SDS Revision History: Updated formulation – changes to sections 3, 8, 11, 12, 15.**Date of preparation:** January 10, 2020**Date of last revision:** July 12, 2019

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The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or the consequences of its use or misuse.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Snoop

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Snoop® is a proprietary blend of water, non-ionic surfactants, and a bactericide.

1.3. Details of the supplier of the safety data sheet

Swagelok
29495 F.A. Lennon Drive
Solon, OH 44139 - United States
T 440-349-5600 - F 440-519-3304

Supplier:
[Distributor, add your contact information](#)

www.swagelok.com

1.4. Emergency telephone number

Emergency number : **Infotrac:** North America: 1-800-535-5053 International: 1-352-323-3500

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GHS US classification**

Not classified- Non Hazardous

2.2. Label elements**GHS US labeling**

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Full text of H-phrases: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : Prolonged exposure may cause irritation.
Symptoms/effects after skin contact : Prolonged exposure may cause skin irritation.
Symptoms/effects after eye contact : May cause slight irritation.

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Symptoms/effects after ingestion : Ingestion may cause adverse effects.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container and SDS at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not considered flammable but may burn at high temperatures.

Explosion hazard : Product is not explosive.

Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Oxides of carbon and sulfur formed if burned.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use appropriate personal protection equipment (PPE).

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle in accordance with standard industrial practices and ensure appropriate usage. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from: children. Keep container closed when not in use.

Incompatible products : Strong acids, strong bases, strong oxidizers, water-reactive materials.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage area : Keep from freezing and extreme heat to protect quality of the product. Store in a dry, cool and well-ventilated place.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Snoop | |
|-------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the workstation. General industrial hygiene practice. |
| Personal protective equipment | : Avoid all unnecessary exposure. |
| Hand protection | : Wear protective gloves. |
| Eye protection | : Chemical goggles or safety glasses. |
| Skin and body protection | : Chemical resistant safety shoes. Impervious clothing. |
| Respiratory protection | : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection. |
| Environmental exposure controls | : Avoid release to the environment. |
| Other information | : Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Color | : No data available |
| Odor | : Characteristic |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : No data available |

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers, water-reactive materials.

10.6. Hazardous decomposition products

Hazardous fumes. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|---|---|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |
| Specific target organ toxicity – repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after inhalation | : Prolonged exposure may cause irritation. |
| Symptoms/effects after skin contact | : Prolonged exposure may cause skin irritation. |
| Symptoms/effects after eye contact | : May cause slight irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause adverse effects. |

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

| | |
|-------------------------------|------------------|
| Snoop | |
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| | |
|---------------------------|------------------|
| Snoop | |
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|---------------------------------------|
| Effect on ozone layer | : No additional information available |
| Effect on the global warming | : No known effects from this product. |

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Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

15.3. US State regulations

SECTION 16: Other information

Other information : None.

GHS US SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Snoop

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Snoop® is a proprietary blend of water, non-ionic surfactants, and a bactericide.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Swagelok
29495 F.A. Lennon Drive
44139 Solon, OH - United States
T 440-349-5600 - F 440-519-3304
www.swagelok.com

Supplier:
[Distributor, add your contact information](#)

1.4. Emergency telephone number

Emergency number : **Infotrac:** North America: 1-800-535-5053 International: 1-352-323-3500

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified- Non Hazardous

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labeling according to Regulation (EC) No. 1272/2008 [CLP]**

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/Information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

4.2. Most important symptoms and effects, both acute and delayed

| | |
|-------------------------------------|--|
| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Symptoms/effects after inhalation | : Prolonged exposure may cause irritation. |
| Symptoms/effects after skin contact | : Prolonged exposure may cause skin irritation. |
| Symptoms/effects after eye contact | : May cause slight irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause adverse effects. |

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container and SDS at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------------|---|
| Fire hazard | : Not considered flammable but may burn at high temperatures. |
| Explosion hazard | : Product is not explosive. |

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |
| Other information | : Oxides of carbon and sulfur formed if burned. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------|--|
| General measures | : Use appropriate personal protection equipment (PPE). |
|------------------|--|

6.1.1. For non-emergency personnel

| | |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area. |

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. |
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
| Other information | : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. |

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|---|
| Additional hazards when processed | : Handle in accordance with standard industrial practices and ensure appropriate usage. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry. |
| Precautions for safe handling | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|------------------------|---|
| Storage conditions | : Keep only in the original container in a cool, well ventilated place away from : children. Keep container closed when not in use. |
| Incompatible products | : Strong acids, strong bases, strong oxidizers, water-reactive materials. |
| Incompatible materials | : Sources of ignition. Direct sunlight. |
| Storage area | : Keep from freezing and extreme heat to protect quality of the product. Store in a dry, cool and well-ventilated place. |

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the workstation. General industrial hygiene practice.

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Chemical resistant safety shoes. Impervious clothing

Respiratory protection:

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Color | : No data available |
| Odor | : Characteristic. |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Non flammable |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : No data available |

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers, water-reactive materials.

10.6. Hazardous decomposition products

Hazardous fumes. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic acute : Not classified

Aquatic chronic : Not classified

12.2. Persistence and degradability

| Snoop | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| Snoop | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

Snoop

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

Snoop

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Other information : None.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture

Product name : Snoop

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Snoop® is a proprietary blend of water, non-ionic surfactants, and a bactericide.

1.3. Details of the supplier of the safety data sheetSwagelok
29495 F.A. Lennon Drive
Solon, OH 44139 - United States
T 440-349-5600 - F 440-519-3304Supplier:
[Distributor, add your contact information](#)www.swagelok.com**1.4. Emergency telephone number**Emergency number : **Infotrac:** North America: 1-800-535-5053 International: 1-352-323-3500**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS US classification**

Not classified- Non Hazardous

2.2. Label elements**GHS US labeling**

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Full text of H-phrases: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : Prolonged exposure may cause irritation.

Symptoms/effects after skin contact : Prolonged exposure may cause skin irritation.

Symptoms/effects after eye contact : May cause slight irritation.

Snoop

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after ingestion : Ingestion may cause adverse effects.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container and SDS at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not considered flammable but may burn at high temperatures.

Explosion hazard : Product is not explosive.

Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Oxides of carbon and sulfur formed if burned.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use appropriate personal protection equipment (PPE).

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle in accordance with standard industrial practices and ensure appropriate usage. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from: children. Keep container closed when not in use.

Incompatible products : Strong acids, strong bases, strong oxidizers, water-reactive materials.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage area : Keep from freezing and extreme heat to protect quality of the product. Store in a dry, cool and well-ventilated place.

Snoop

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Snoop | |
|-------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the workstation. General industrial hygiene practice.
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses.
- Skin and body protection : Chemical resistant safety shoes. Impervious clothing.
- Respiratory protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
- Environmental exposure controls : Avoid release to the environment.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Color : No data available
- Odor : Characteristic
- Odor threshold : No data available
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available
- Relative density : No data available
- Solubility : No data available
- Log Pow : No data available
- Log Kow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Explosion limits : No data available

9.2. Other information

No additional information available

Snoop

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers, water-reactive materials.

10.6. Hazardous decomposition products

Hazardous fumes. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|---|---|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |
| Specific target organ toxicity – repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after inhalation | : Prolonged exposure may cause irritation. |
| Symptoms/effects after skin contact | : Prolonged exposure may cause skin irritation. |
| Symptoms/effects after eye contact | : May cause slight irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause adverse effects. |

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

| | |
|-------------------------------|------------------|
| Snoop | |
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| | |
|---------------------------|------------------|
| Snoop | |
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|---------------------------------------|
| Effect on ozone layer | : No additional information available |
| Effect on the global warming | : No known effects from this product. |

Snoop

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

15.3. US State regulations

SECTION 16: Other information

Other information : None.

GHS US SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Safety Data Sheet

The Armor All/STP Products Company

44 Old Ridgebury Road
 Suite 300
 Danbury, CT 06810
 Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: STP® PRO Formula Motor Oil: 5W-20, 5W-30, 10W30

Responsible Party: The Armor All/STP Products Company
 44 Old Ridgebury Road
 Suite 300
 Danbury, CT 06810

Information Phone Number: +1 203-205-2900

Emergency Phone Number:

For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
 For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for
 Outside US and Canada (call collect)

SDS Date Of Preparation: 11/20/14

Product Use: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will differ from the OSHA label elements.

GHS Classification:

| | |
|------------------|----------------|
| Physical: | Health: |
| Not Hazardous | Not Hazardous |

GHS Label Elements: None

3. Composition/Information On Ingredients

| Component | CAS No. | Amount |
|---|------------|----------|
| Petroleum distillates, hydrotreated heavy paraffinic | 64742-54-7 | 30 - 90% |
| Petroleum distillates, solvent dewaxed heavy paraffinic | 64742-65-0 | 5 - 45% |

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Get medical attention if symptoms appear and persist.

Skin Contact: Remove contaminated clothing and launder before reuse. Wash exposed skin with soap and water. If skin irritation or redness develops, get medical attention.

Eye Contact: Flush eyes with plenty of water. If irritation or other symptoms persist, seek medical attention.

Ingestion: DO NOT induce vomiting. If the victim is fully conscious, have them drink a glass of water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or



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The Armor All/STP Products Company

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drowsy.

Most Important Symptoms: Direct eye contact may cause mild irritation. Inhalation of mists or vapors generated at elevated temperatures may cause respiratory irritation. Prolonged skin contact may cause dryness and defatting.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: Will burn under fire conditions. Closed containers may rupture if exposed to extreme heat. Burning may produce carbon monoxide and carbon dioxide, and hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Caution – slip hazard. Eliminate all ignition sources and ventilate the area. Wear appropriate protective equipment.

Environmental Precautions: Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations. Notify the National Response Center if a spill of any amount enters navigable waters, the contiguous zone, or adjoining shorelines.

Methods for Containment and Clean-Up: Stop spill at the source if it is safe to do so. Absorb with an inert material. Collect into a suitable container for disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Avoid breathing vapors and mists. Wash exposed skin thoroughly with soap and water after use. Keep containers closed when not in use. Keep out of the reach of children.

Empty containers retain product residue and may be hazardous. Do not reuse empty containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, dry, well-ventilated area. Store away from oxidizing agents and other incompatible materials.

8. Exposure Controls / Personal Protection

Exposure Guidelines:



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44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

| CHEMICAL | EXPOSURE LIMIT |
|--|---|
| Petroleum distillates, hydrotreated heavy paraffinic (as Mineral Oil) | 5 mg/m3 inhalable TWA ACGIH TLV 5 mg/m3 TWA OSHA PEL (as mist) |
| Petroleum distillates, solvent dewaxed heavy paraffinic (as Mineral Oil) | 5 mg/m3 inhalable TWA ACGIH TLV 5 mg/m3 TWA OSHA PEL (as mist) |

Engineering Controls: General ventilation should be adequate for all normal use. For operations where the TLV may be exceeded, forced ventilation such as local exhaust may be needed to maintain exposures below applicable limits.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions. For operations where the TLV is exceeded, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Gloves: None normally required. Impervious gloves such as neoprene or nitrile are recommended if needed to avoid prolonged or repeated skin contact.

Eye Protection: None required for normal use. Avoid eye contact. Safety glasses or goggles are recommended if eye contact is possible.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance And Odor: Amber liquid with a mild odor.

| | |
|--|--|
| Physical State: Liquid | Odor Threshold: Not determined |
| pH: Not determined | Specific Gravity: 0.86 - 0.87 |
| Initial Boiling Point/Range: Not determined | Vapor Pressure: Not determined |
| Melting/Freezing Point: Not determined | Vapor Density: Not determined |
| Solubility In Water: Negligible (0-1%) | Percent Volatile: Nil |
| Viscosity: 48.19 – 69.61 cSt @ 40°C | Evaporation Rate: Not determined |
| Coefficient Of Water/Oil Distribution: Not determined | VOC Content: Not determined |
| Flash Point: 408.2°F (209°C) COC | Autoignition Temp: Not determined |
| Decomposition Temperature: Not determined | Flammability Limits: LEL: Not determined UEL: Not determined |
| Flammability (solid, gas): Not applicable | |

10. Stability and Reactivity

Reactivity: Not normally reactive

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known

Conditions To Avoid: Keep away from excessive heat and open flames.

Incompatible Materials: Strong oxidizing agents.



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The Armor All/STP Products Company

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Hazardous Decomposition Products: Burning may produce carbon monoxide, carbon dioxide, and hydrocarbons.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

Acute Hazards:

Inhalation: Inhalation of mists or vapors generated at elevated temperatures may cause upper respiratory tract irritation.

Skin Contact: Not a skin irritant. Prolonged or repeated contact may cause defatting and drying of the skin and dermatitis.

Eye Contact: Direct contact may cause slight eye irritation.

Ingestion: Swallowing may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Chronic Hazards: None currently known.

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

Petroleum distillates, hydrotreated heavy paraffinic:

LD50 Oral Rat: >2,000 mg/kg; LD50 Skin Rabbit: >2000 mg/kg; LC50 Inhalation Rat 2.18 mg/L/ 4 hr.

Petroleum distillates, solvent dewaxed heavy paraffinic:

LD50 Oral Rat: >5000 mg/kg; LD50 Skin Rat >5000 mg/kg; LC50 Inhalation Rat >4.7 mg/L/ 4 hr.

12. Ecological Information

Ecotoxicity:

Petroleum distillates, hydrotreated heavy paraffinic:

LC50 Rainbow trout (*Oncorhynchus mykiss*): > 5,000 mg/L/ 96hr.

LC50 water flea (*Daphnia magna*): > 1,000 mg/L / 48hr.

Petroleum distillates, solvent dewaxed heavy paraffinic:

LC50 Rainbow trout (*Oncorhynchus mykiss*): > 5,000 mg/L/ 96hr.

LC50 water flea (*Daphnia magna*): > 1,000 mg/L / 48hr.

Persistence and Degradability:

Biodegrades slowly.

Bio accumulative Potential:

Bioconcentration is not expected to occur.

Mobility in Soil:

This material is expected to have essentially no mobility in soil, and absorbs strongly to most soil types

Other Adverse Effects: No data available.



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13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ, however, oil spills must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not hazardous

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Canada:

Canadian WHMIS Classification: Not a controlled product.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

| | | | |
|-------------------------|-----------|---------|--------------------|
| NFPA Rating (NFPA 704): | Health: 0 | Fire: 1 | Instability: 0 |
| HMIS Rating: | Health: 0 | Fire: 1 | Physical Hazard: 0 |

REVISION SUMMARY: Update to GHS format. Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

Safety Data Sheet


RUST-OLEUM
AUSTRALIA
www.rustoleum.au

1. Identification

| | | | |
|-----------------------------|--|-------------------------|--|
| Product Name: | STRUST +SSPR 6PK GLOSS ANTIQUE WHITE | Revision Date: | 4/23/2019 |
| Product Identifier: | 7794830 | Supersedes Date: | 5/10/2017 |
| Recommended Use: | Topcoat/Aerosols | | |
| Supplier: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA | Manufacturer: | Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA |
| Preparer: | Regulatory Department | | |
| Emergency Telephone: | 24 Hour Hotline: 847-367-7700 | | |

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

33% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

| | | |
|---------------------------------------|------|---|
| Carcinogenicity, category 1B | H350 | May cause cancer. |
| Compressed Gas | H280 | Contains gas under pressure; may explode if heated. |
| Eye Irritation, category 2A | H319 | Causes serious eye irritation. |
| Flammable Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| Germ Cell Mutagenicity, category 1B | H340 | May cause genetic defects. |
| STOT, single exposure, category 3, NE | H336 | May cause drowsiness or dizziness. |

GHS LABEL PRECAUTIONARY STATEMENTS

| | |
|-----------|--|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash hands thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

| | |
|----------------|--|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F. |
| P501 | Dispose of contents/container in accordance with local, regional and national regulations. |

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>Wt.% Range</u> | <u>GHS Symbols</u> | <u>GHS Statements</u> |
|----------------------------------|----------------|-------------------|--------------------|--------------------------|
| Propane | 74-98-6 | 10-25 | GHS04 | H280 |
| n-Butyl Acetate | 123-86-4 | 10-25 | GHS02-GHS07 | H226-336 |
| Acetone | 67-64-1 | 10-25 | GHS02-GHS07 | H225-319-332-336 |
| Titanium Dioxide | 13463-67-7 | 10-25 | Not Available | Not Available |
| n-Butane | 106-97-8 | 2.5-10 | GHS04 | H280 |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 1.0-2.5 | GHS02-GHS07 | H226-315-319-332 |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 1.0-2.5 | GHS07-GHS08 | H304-332 |
| Barium Sulfate | 7727-43-7 | 1.0-2.5 | GHS07 | H332 |
| Propylene Glycol Monobutyl Ether | 5131-66-8 | 1.0-2.5 | GHS07 | H302-315-319 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 1.0-2.5 | GHS02-GHS07-GHS08 | H226-304-315-319-332-335 |
| Ethylbenzene | 100-41-4 | 0.1-1.0 | GHS02-GHS07-GHS08 | H225-304-332-351-373 |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 0.1-1.0 | GHS07-GHS08 | H304-332-340-350 |
| Barium Metaborate | 13701-59-2 | 0.1-1.0 | GHS07 | H302-332 |

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

| Chemical Name | CAS-No. | Weight % Less Than | ACGIH TLV- TWA | ACGIH TLV- STEL | OSHA PEL-TWA | OSHA PEL- CEILING |
|----------------------------------|------------|-----------------------|-------------------|--------------------|--------------|----------------------|
| Propane | 74-98-6 | 20.0 | N.E. | N.E. | 1000 ppm | N.E. |
| n-Butyl Acetate | 123-86-4 | 20.0 | 50 ppm | 150 ppm | 150 ppm | N.E. |
| Acetone | 67-64-1 | 20.0 | 250 ppm | 500 ppm | 1000 ppm | N.E. |
| Titanium Dioxide | 13463-67-7 | 15.0 | 10 mg/m3 | N.E. | 15 mg/m3 | N.E. |
| n-Butane | 106-97-8 | 10.0 | N.E. | 1000 ppm | N.E. | N.E. |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 5.0 | 100 ppm | 150 ppm | 100 ppm | N.E. |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Barium Sulfate | 7727-43-7 | 5.0 | 5 mg/m3 | N.E. | 15 mg/m3 | N.E. |
| Propylene Glycol Monobutyl Ether | 5131-66-8 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| 1,2,4-Trimethylbenzene | 95-63-6 | 5.0 | N.E. | N.E. | N.E. | N.E. |
| Ethylbenzene | 100-41-4 | 1.0 | 20 ppm | N.E. | 100 ppm | N.E. |
| Solvent Naphtha, Light Aromatic | 64742-95-6 | 1.0 | N.E. | N.E. | N.E. | N.E. |
| Barium Metaborate | 13701-59-2 | 1.0 | 0.5 mg/m3 | 6 mg/m3 | 0.5 mg/m3 | N.E. |

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

| | | | |
|---------------------------------|---------------------|--|------------|
| Appearance: | Aerosolized Mist | Physical State: | Liquid |
| Odor: | Solvent Like | Odor Threshold: | N.E. |
| Specific Gravity: | 0.840 | pH: | N.A. |
| Freeze Point, °C: | N.D. | Viscosity: | N.D. |
| Solubility in Water: | Slight | Partition Coefficient, n-octanol/water: | N.D. |
| Decomposition Temp., °C: | N.D. | Explosive Limits, vol%: | 0.9 - 13.0 |
| Boiling Range, °C: | -37 - 537 | Flash Point, °C: | -96 |
| Flammability: | Supports Combustion | Auto-ignition Temp., °C: | N.D. |
| Evaporation Rate: | Faster than Ether | Vapor Pressure: | N.D. |
| Vapor Density: | Heavier than Air | | |

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> |
|----------------|------------------------------|------------------|---------------------|-------------------|
| 123-86-4 | n-Butyl Acetate | 10768 mg/kg Rat | >17600 mg/kg Rabbit | > 21 mg/L Rat |
| 67-64-1 | Acetone | 5800 mg/kg Rat | >15700 mg/kg Rabbit | 50.1 mg/L Rat |
| 13463-67-7 | Titanium Dioxide | >10000 mg/kg Rat | 2500 mg/kg | N.E. |
| 106-97-8 | n-Butane | N.E. | N.E. | 658 mg/L Rat |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 3500 mg/kg Rat | >4350 mg/kg Rabbit | 29.08 mg/L Rat |

| | | | | |
|------------|----------------------------------|------------------|--------------------|---------------|
| 64742-95-6 | Solvent Naphtha, Light Aromatic | 8400 mg/kg Rat | >2000 mg/kg Rabbit | N.E. |
| 7727-43-7 | Barium Sulfate | 307000 mg/kg Rat | N.E. | N.E. |
| 5131-66-8 | Propylene Glycol Monobutyl Ether | 1900 mg/kg Rat | N.E. | N.E. |
| 95-63-6 | 1,2,4-Trimethylbenzene | 3280 mg/kg Rat | >3160 mg/kg Rabbit | 18 mg/L Rat |
| 100-41-4 | Ethylbenzene | 3500 mg/kg Rat | 15400 mg/kg Rabbit | 17.4 mg/L Rat |
| 64742-95-6 | Solvent Naphtha, Light Aromatic | 8400 mg/kg Rat | >2000 mg/kg Rabbit | N.E. |
| 13701-59-2 | Barium Metaborate | 530 mg/kg Rat | >2000 mg/kg Rabbit | N.E. |

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

14. Transport Information

| | <u>Domestic (USDOT)</u> | <u>International (IMDG)</u> | <u>Air (IATA)</u> | <u>TDG (Canada)</u> |
|------------------------------|---|-----------------------------|---------------------|---------------------|
| UN Number: | N.A. | 1950 | 1950 | N.A. |
| Proper Shipping Name: | Paint and Related Spray Products in Ltd Qty | Aerosols | Aerosols, flammable | Aerosols |
| Hazard Class: | N.A. | 2 | 2.1 | N.A. |
| Packing Group: | N.A. | N.A. | N.A. | N.A. |
| Limited Quantity: | Yes | Yes | Yes | Yes |

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure), Germ cell mutagenicity

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|------------------------------|----------------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Ethylbenzene | 100-41-4 |
| Barium Metaborate | 13701-59-2 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. State Regulations:**California Proposition 65:****WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.**16. Other Information****HMIS RATINGS**

| | | | | | | | |
|----------------|----|----------------------|---|-------------------------|---|-----------------------------|---|
| Health: | 2* | Flammability: | 4 | Physical Hazard: | 0 | Personal Protection: | X |
|----------------|----|----------------------|---|-------------------------|---|-----------------------------|---|

NFPA RATINGS

| | | | | | |
|----------------|---|----------------------|---|--------------------|---|
| Health: | 2 | Flammability: | 4 | Instability | 0 |
|----------------|---|----------------------|---|--------------------|---|

Volatile Organic Compounds 537 g/L**SDS REVISION DATE:** 4/23/2019

REASON FOR REVISION: Revision Description Changed
 Product Composition Changed
 Substance and/or Product Properties Changed in Section(s):
 01 - Identification
 02 - Hazard Identification
 05 - Fire-fighting Measures
 14 - Transport Information
 15 - Regulatory Information
 16 - Other Information
 Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



Safety Data Sheet

Issue Date: 01-May-2007

Revision Date: 18-Jun-2020

Version 2

1. IDENTIFICATION

Product Identifier CH110
Product Name Sun Brite All Purpose Bleach

Other means of identification
SDS # CPD-006-10001

EPA Number 55852-1

Recommended use of the chemical and restrictions on use
Recommended Use Bleach.

Details of the supplier of the safety data sheet

Supplier Address
Champion Packaging & Distribution
1840 Internationale Pkwy
Woodridge, IL 60517

Emergency Telephone Number
Company Phone Number 630-972-0100
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear to yellow liquid **Physical State** Liquid **Odor** Pungent, irritating, that of household bleach

Classification

| | |
|-----------------------------------|---------------------------|
| Skin corrosion/irritation | Category 1 Sub-category C |
| Serious eye damage/eye irritation | Category 1 |

Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a poison center or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a poison center or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a poison center or doctor/physician

IF SWALLOWED: rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---------------------|-----------|----------|
| Sodium hypochlorite | 7681-52-9 | 1-10 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

| | |
|-----------------------|--|
| General Advice | Immediately call a poison center or doctor/physician. |
| Eye Contact | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Immediately call a poison center or doctor/physician. |
| Skin Contact | Immediately flush with soap and water. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician. |
| Ingestion | Immediately call a poison center or doctor/physician. Rinse mouth. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person. |

Most important symptoms and effects

| | |
|-----------------|---|
| Symptoms | Causes severe skin burns and eye damage. Respiratory tract irritant. Ingestion can cause corrosion of the mucous membranes. |
|-----------------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not considered to be a fire hazard. Not considered to be an explosion hazard.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Move unprotected personnel upwind out of danger. Dilute with water and flush to local sewer system, if permitted. Solid waste must be disposed of in a permitted waste management facility. Ensure compliance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Store in a cool, dry, well-ventilated place. Protect container from physical damage. Store away from incompatible materials.

Incompatible Materials Reacts vigorously with Amine, Ammonium Acetate, Ammonium Oxalate, Acids and most organics.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls Local exhaust ventilation recommended. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Use chemical safety goggles impervious to product. Contact lenses should not be worn when working with this material.

Skin and Body Protection Wear impervious protective clothing including boots, gloves, lab coat, apron, or coveralls to prevent skin contact.

Respiratory Protection (NIOSH Approved) Recommended for all personnel working in or about an area of potential exposure.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|------------------------------|-----------------------------|-------------------------|---|
| Physical State | Liquid | Odor | Pungent, irritating, that of household bleach |
| Appearance | Clear to yellow liquid | Odor Threshold | Not determined |
| Color | Clear to yellow | | |
| Property | Values | Remarks • Method | |
| pH | 12.75 | | |
| Melting Point/Freezing Point | Not determined | | |
| Boiling Point/Boiling Range | Decomposes prior to boiling | | |
| Flash Point | Not determined | | |
| Evaporation Rate | Not Applicable | | |
| Flammability (Solid, Gas) | Liquid- Not applicable | | |
| Upper Flammability Limits | Not determined | | |
| Lower Flammability Limit | Not determined | | |
| Vapor Pressure | Approximately that of air | | |
| Vapor Density | Not determined | | |
| Specific Gravity | 1.086 | | at 15.6°C (60°F) |
| Water Solubility | Completely soluble | | |
| Solubility in other solvents | Not determined | | |
| Partition Coefficient | Not determined | | |
| Auto-ignition Temperature | Not determined | | |
| Decomposition Temperature | Not determined | | |
| Kinematic Viscosity | Not determined | | |
| Dynamic Viscosity | Not determined | | |
| Explosive Properties | Not determined | | |
| Oxidizing Properties | Not determined | | |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under ordinary conditions of use and storage. Unstable at elevated temperatures.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization This substance does not polymerize.

Conditions to Avoid

Excessive heat and fire. Incompatible Materials.

Incompatible Materials

Reacts vigorously with Amine, Ammonium Acetate, Ammonium Oxalate, Acids and most organics.

Hazardous Decomposition Products

Decomposes under various mechanisms. May generate chlorine or oxygen which can be toxic and explosive, respectively.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

- Eye Contact** Causes severe eye damage.
- Skin Contact** Causes severe skin burns.
- Inhalation** Do not inhale.
- Ingestion** Do not ingest.

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------------------------|----------------------|--------------------------|-----------------|
| Sodium hypochlorite 7681-52-9 | = 8200 mg/kg (Rat) | > 10000 mg/kg (Rabbit) | - |

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Group 3 IARC components are "not classifiable as human carcinogens".

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|----------------------------------|-------|---------|-----|------|
| Sodium hypochlorite 7681-52-9 | | Group 3 | | |

Legend

*IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"*

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|----------------------------------|--|---|----------------------------|--|
| Sodium hypochlorite 7681-52-9 | 0.095: 24 h Skeletonema costatum mg/L EC50 | 0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 4.5 - 7.6: 96 h Pimephales promelas mg/L LC50 static 0.4 - 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.28 - 1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.771: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.03 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.18 - 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static | | 2.1: 96 h Daphnia magna mg/L EC50 0.033 - 0.044: 48 h Daphnia magna mg/L EC50 Static |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

Not regulated

IATA**Proper Shipping Name**

The product as packaged is not approved for air transportation.

IMDG**UN/ID No**

UN3082

Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s. (Sodium hypochlorite)

Hazard Class

9

Packing Group

III

Marine Pollutant

Sodium hypochlorite

Description

For combination packagings (e.g. boxes) containing inner packagings (e.g. bottles) of 5 L (1.33 gal) or less, the product is shipped as a limited quantity per IMDG Code Chapter 3.4.

15. REGULATORY INFORMATION**International Inventories**

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---------------------|---------|-----|------|---------|--------|---------|-------|---------|-------|------|
| Sodium hypochlorite | Present | X | | Present | | Present | X | Present | X | X |

Legend:*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances**AICS - Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|----------------------------------|--------------------------|----------------|---|
| Sodium hypochlorite 7681-52-9 | 100 lb | | RQ 100 lb final RQ RQ 45.4 kg final RQ |

SARA 313

Not determined

CWA (Clean Water Act)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium hypochlorite | 100 lb | | | X |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|----------------------------------|------------|---------------|--------------|
| Sodium hypochlorite 7681-52-9 | X | X | X |

16. OTHER INFORMATION

| | | | | |
|--------------------|-----------------------|---------------------|-------------------------|----------------------------|
| <u>NFPA</u> | Health Hazards | Flammability | Instability | Special Hazards |
| | 1 | 0 | 0 | Not determined |
| <u>HMIS</u> | Health Hazards | Flammability | Physical Hazards | Personal Protection |
| | 1 | 0 | 0 | Not determined |

Issue Date: 01-May-2007
 Revision Date: 18-Jun-2020
 Revision Note: Update format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|-------------------------------|--|
| Product Identifier | SUPERIOR SNO-N-ICE MELTER |
| Recommended use | Ice Melter |
| Manufactured by: | CP Industries, LLC 560 North 500 West Salt Lake City, UT 84116 (800) 453-4931 |
| Emergency Contact # (24 Hour) | InfoTrac (800) 535-5053 |

2. HAZARDOUS IDENTIFICATION

| | |
|--|--------------------------|
| Classification of the substance or mixture | Not a hazardous material |
| Hazard Statements | Not a hazardous material |
| GHS label elements, including precautionary statements | |
| Hazards not otherwise classified (HNOC) | None |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| <u>Substance(s) Description</u> | <u>CAS#</u> | <u>Percentage</u> |
|---|-------------|-------------------|
| Sodium Chloride | 7647-14-5 | |
| Calcium Magnesium Acetate (CMA) | 76123-46-1 | |
| Pro-Tec Plus® (Proprietary Inhibitor Package) | N/A | |

No ingredients are hazardous according to OSHA criteria.
No ingredients No components need to be disclosed according to applicable regulations.

4. FIRST AID MEASURES

| | |
|------------------------|---|
| Inhalation First Aid | Inhalation is unlikely; however, if it does occur, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention. |
| Skin Contact First Aid | Wash with soap and plenty of water. |
| Eye Contact First Aid | Flush eyes with water. |
| Ingestion First Aid | Never give anything by mouth to an unconscious person. Seek medical attention. |



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling.

Indication of any immediate medical attention and special treatment needed No data available.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Hazards from mixture Hydrogen Chloride gas, Sodium Oxides

Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary/available.

Further information No data available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid breathing vapors, mist or gas.

Protective equipment and emergency procedures For personal protection see Section 8.

Environmental precautions Avoid large concentrations of product in a confined area.

Materials for containment and clean up Broom and a dustpan or shovel

Methods for cleanup containment Sweep up and keep in suitable, closed containers for disposal.

Reference to other sections See Section 13 for disposal procedures

7. HANDLING AND STORAGE

Precautions for safe handling Wear protective equipment when handling this product to avoid eye and skin contact. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Storage containers should be stored in a cool, dry and well-ventilated area away from strong oxidizing agents.

Specific end use(s) Apart from the uses stated in Section 1, no other specific uses are stipulated.



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---|--|
| Components with workplace control parameters | Contains no substances with occupational exposure limit values. |
| Personal Protective Equipment (PPE) | |
| Respiratory Protection | Dust mask if dust is excessive. |
| Skin Protection | Gloves should be worn when excessive skin contact cannot be avoided. |
| Eye Protection | Eye Protection is recommended in all industrial work places. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--|
| Appearance | Form: Solid, Crystalline |
| | Color: Pink |
| Odor | None |
| Odor Threshold | No data available |
| pH | 7 |
| Melting/Freezing point | Melting point/range: 801° C (1,474° F) |
| Initial boiling point | 1,413° C (2,575° F) |
| Flash point | Greater than 212.0° F (100.0° C) |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Explosive limits | No data available |
| Vapor pressure | 1.33 hPa (1.00 mmHg) at 865° C (1, 589° F) |
| Vapor density | No data available |
| Relative density | 2.1650 g/cm ³ |
| Water solubility | soluble |
| Partition coefficient n-octanol/water | No data available |
| Auto-ignition temperature | Greater than 302.0° F (150.0° C) |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Reactivity | No data available |
| Chemical stability | Stable under recommended storage conditions |
| Possibility of hazardous reactions | No data available |
| Conditions to avoid | No data available |
| Incompatible materials | Strong oxidizing agents |
| Hazardous decomposition products | Other decomposition products - No data available |



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

In the event of fire: see Section 5

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Although no specific exposure limit has been established for this product OSHA and ACGIH have established limits for nuisance dust:

Eye Contact
Inhalation
Skin Contact
Ingestion
Chronic

OSHA PEL/TWA Total 15 Mg/M3; Respirable 5 Mg/M3;
8-Hour TWA
ACGIH TLV/TWA Total 10 Mg/M3; 8 Hour TWA
Mild irritation.
Nuisance dust can be irritating to nose, throat and lungs
Prolonged continual exposure can be irritating.
Ingestion may cause gastrointestinal irritation.
No evidence of adverse effects from available data

12. ECOLOGICAL INFORMATION

Toxicity
Bioaccumulative potential
Persistence and degradability
Mobility in soil
Results of PBT and vPvB assessment

No data available
No data available
No data available
No data available
PBT/vPvB assessment not available as chemical safety assessment not required
No data available

Other adverse effects

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods
Product

Offer surplus and non-recyclable solution to a licensed disposal company.

Contaminated packaging

Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in the data sheet must be observed. Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
IMDG
IATA

Not dangerous goods
Not dangerous goods
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Category
SARA 313 Supplier Notification

Not regulated
Not reportable



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

All Ingredients are Listed on the TSCA Inventory

16. OTHER INFORMATION

Special Precautions or Other Comments: The information accumulated herein is believed to be accurate but is not warranted to be regardless of whom it originates with. Recipients are advised to confirm prior to need that the information is current, applicable, and suitable to their circumstances.



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|-------------------------------|--|
| Product Identifier | SUPERIOR SNO-N-ICE MELTER |
| Recommended use | Ice Melter |
| Manufactured by: | CP Industries, LLC 560 North 500 West Salt Lake City, UT 84116 (800) 453-4931 |
| Emergency Contact # (24 Hour) | InfoTrac (800) 535-5053 |

2. HAZARDOUS IDENTIFICATION

| | |
|--|--------------------------|
| Classification of the substance or mixture | Not a hazardous material |
| Hazard Statements | Not a hazardous material |
| GHS label elements, including precautionary statements | |
| Hazards not otherwise classified (HNOC) | None |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| <u>Substance(s) Description</u> | <u>CAS#</u> | <u>Percentage</u> |
|---|-------------|-------------------|
| Sodium Chloride | 7647-14-5 | |
| Calcium Magnesium Acetate (CMA) | 76123-46-1 | |
| Pro-Tec Plus® (Proprietary Inhibitor Package) | N/A | |

No ingredients are hazardous according to OSHA criteria.
No ingredients No components need to be disclosed according to applicable regulations.

4. FIRST AID MEASURES

| | |
|------------------------|---|
| Inhalation First Aid | Inhalation is unlikely; however, if it does occur, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention. |
| Skin Contact First Aid | Wash with soap and plenty of water. |
| Eye Contact First Aid | Flush eyes with water. |
| Ingestion First Aid | Never give anything by mouth to an unconscious person. Seek medical attention. |



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling.

Indication of any immediate medical attention and special treatment needed No data available.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Hazards from mixture Hydrogen Chloride gas, Sodium Oxides

Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary/available.

Further information No data available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid breathing vapors, mist or gas.

Protective equipment and emergency procedures For personal protection see Section 8.

Environmental precautions Avoid large concentrations of product in a confined area.

Materials for containment and clean up Broom and a dustpan or shovel

Methods for cleanup containment Sweep up and keep in suitable, closed containers for disposal.

Reference to other sections See Section 13 for disposal procedures

7. HANDLING AND STORAGE

Precautions for safe handling Wear protective equipment when handling this product to avoid eye and skin contact. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Storage containers should be stored in a cool, dry and well-ventilated area away from strong oxidizing agents.

Specific end use(s) Apart from the uses stated in Section 1, no other specific uses are stipulated.



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---|--|
| Components with workplace control parameters | Contains no substances with occupational exposure limit values. |
| Personal Protective Equipment (PPE) | |
| Respiratory Protection | Dust mask if dust is excessive. |
| Skin Protection | Gloves should be worn when excessive skin contact cannot be avoided. |
| Eye Protection | Eye Protection is recommended in all industrial work places. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--|
| Appearance | Form: Solid, Crystalline |
| Odor | Color: Pink |
| Odor Threshold | None |
| pH | No data available |
| Melting/Freezing point | 7 |
| Initial boiling point | Melting point/range: 801° C (1,474° F) |
| Flash point | 1,413° C (2,575° F) |
| Evaporation rate | Greater than 212.0° F (100.0° C) |
| Flammability (solid, gas) | No data available |
| Explosive limits | No data available |
| Vapor pressure | No data available |
| Vapor density | 1.33 hPa (1.00 mmHg) at 865° C (1, 589° F) |
| Relative density | No data available |
| Water solubility | 2.1650 g/cm ³ |
| Partition coefficient n-octanol/water | soluble |
| Auto-ignition temperature | No data available |
| Decomposition temperature | Greater than 302.0° F (150.0° C) |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Reactivity | No data available |
| Chemical stability | Stable under recommended storage conditions |
| Possibility of hazardous reactions | No data available |
| Conditions to avoid | No data available |
| Incompatible materials | No data available |
| Hazardous decomposition products | Strong oxidizing agents |
| | Other decomposition products - No data available |



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

In the event of fire: see Section 5

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Although no specific exposure limit has been established for this product OSHA and ACGIH have established limits for nuisance dust:

Eye Contact
Inhalation
Skin Contact
Ingestion
Chronic

OSHA PEL/TWA Total 15 Mg/M3; Respirable 5 Mg/M3;
8-Hour TWA
ACGIH TLV/TWA Total 10 Mg/M3; 8 Hour TWA
Mild irritation.
Nuisance dust can be irritating to nose, throat and lungs
Prolonged continual exposure can be irritating.
Ingestion may cause gastrointestinal irritation.
No evidence of adverse effects from available data

12. ECOLOGICAL INFORMATION

Toxicity
Bioaccumulative potential
Persistence and degradability
Mobility in soil
Results of PBT and vPvB assessment

No data available
No data available
No data available
No data available
PBT/vPvB assessment not available as chemical safety assessment not required
No data available

Other adverse effects

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods
Product

Offer surplus and non-recyclable solution to a licensed disposal company.

Contaminated packaging

Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in the data sheet must be observed. Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
IMDG
IATA

Not dangerous goods
Not dangerous goods
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Category
SARA 313 Supplier Notification

Not regulated
Not reportable



SUPERIOR SNO-N-ICE MELTER

Revision 01/30/2015

All Ingredients are Listed on the TSCA Inventory

16. OTHER INFORMATION

Special Precautions or Other Comments: The information accumulated herein is believed to be accurate but is not warranted to be regardless of whom it originates with. Recipients are advised to confirm prior to need that the information is current, applicable, and suitable to their circumstances.

Safety Data Sheet

Issue Date: 26-Feb-2013

Revision Date: 09-Jan-2018

Version 1

1. IDENTIFICATION

Product Identifier

Product Name TAPFREE 2

Other means of identification

SDS # WBC-001

Recommended use of the chemical and restrictions on use

Recommended Use Water-Based Cutting and Tapping Fluid.

Details of the supplier of the safety data sheet

Manufacturer Address

Winfield Brooks Company, INC.
70 Conn Street
Woburn, MA 01801-5662

Emergency Telephone Number

Company Phone Number Phone: 781-933-5300

Fax: 781-932-9239

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Yellow liquid

Physical State Liquid

Odor sweet fatty odor

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|----------------------------|----------|----------|
| 2,2',2''-Nitrilotriethanol | 102-71-6 | <5 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

| | |
|---------------------|--|
| Skin Contact | Wash skin with soap and water. If irritation persists, seek medical attention. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell. |
| Ingestion | Rinse mouth. Drink plenty of water. Do not induce vomiting. Get medical attention if you feel unwell. |

Most important symptoms and effects

| | |
|-----------------|-------------|
| Symptoms | None known. |
|-----------------|-------------|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Dry chemical. Carbon dioxide (CO₂). Water fog. Foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Carbon oxides, Hydrogen chloride gas. Nitrogen oxides (NO_x).

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Water may be used to cool containers to prevent pressure build up. Do not release runoff from fire control methods to sewers or waterways.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so. Prevent runoff to storm sewers and ditches leading to natural waterways.

Methods for Clean-Up Absorb with inert material, and then place in suitable container for chemical waste. Large spills may be taken up with pump or vacuum. Place in appropriate containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Keep container tightly closed when not in use.

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------------|--|
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. |
| Incompatible Materials | Strong oxidizing agents. Reducing agents. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|--------------------------|----------|------------|
| 2,2',2''-Nitrioltriethanol 102-71-6 | TWA: 5 mg/m ³ | - | - |

Appropriate engineering controls

| | |
|-----------------------------|---|
| Engineering Controls | Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations. Ventilation systems. |
|-----------------------------|---|

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------|---|
| Eye/Face Protection | Safety glasses or safety goggles are recommended. |
| Skin and Body Protection | Impervious gloves and protective clothing are recommended. |
| Respiratory Protection | None needed under normal use conditions with adequate ventilation. If the occupational exposure limits are exceeded, a NIOSH approved respirator with acid gas cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice. |

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

| | | | |
|-----------------------|---------------|-----------------------|------------------|
| Physical State | Liquid | Odor | sweet fatty odor |
| Appearance | Yellow liquid | Odor Threshold | Not determined |
| Color | Yellow | | |

| Property | Values | Remarks • Method |
|-------------------------------------|------------------------|-------------------------|
| pH | 8.0 | |
| Melting Point/Freezing Point | 0 °C / 32 °F | |
| Boiling Point/Boiling Range | 100 °C / 212 °F | |
| Flash Point | None | |
| Evaporation Rate | Not determined | |
| Flammability (Solid, Gas) | Liquid- Not Applicable | |
| Upper Flammability Limits | Not determined | |
| Lower Flammability Limit | Not determined | |
| Vapor Pressure | 25 mm Hg | @ 20°C (68°F) |
| Vapor Density | 5.14 | (Air=1) |
| Specific Gravity | 1.0303 | |
| Water Solubility | Completely soluble | |
| Solubility in other solvents | Not determined | |
| Partition Coefficient | Not determined | |
| Auto-ignition Temperature | Not determined | |
| Decomposition Temperature | Not determined | |
| Kinematic Viscosity | Not determined | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|----------------------|----------------|-------------------------|
| Dynamic Viscosity | 5 cps | @ 20°C (68°F) |
| Explosive Properties | Not determined | |
| Oxidizing Properties | Not determined | |
| Density | 8.60 | |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Protect from extreme temperatures.

Incompatible Materials

Strong oxidizing agents. Reducing agents.

Hazardous Decomposition Products

Thermal decomposition of product can produce hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

| <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Inhalation LC50</u> |
|--|----------------------|-----------------------|------------------------|
| 2,2',2''-Nitrilotriethanol 102-71-6 | = 4190 mg/kg (Rat) | > 20 mL/kg (Rabbit) | - |
| Benzotriazole 95-14-7 | = 560 mg/kg (Rat) | > 1 g/kg (Rat) | - |

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

Group 3 IARC components are "not classifiable as human carcinogens".

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|--|-------|---------|-----|------|
| 2,2',2''-Nitrilotriethanol 102-71-6 | | Group 3 | | |

Legend*IARC (International Agency for Research on Cancer)**Group 3 IARC components are "not classifiable as human carcinogens"***Numerical measures of toxicity**

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|--|--|--|----------------------------|---|
| 2,2',2''-Nitrilotriethanol 102-71-6 | 216: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 169: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50 | 10600 - 13000: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 1000: 96 h <i>Pimephales promelas</i> mg/L LC50 static 450 - 1000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static | | 1386: 24 h <i>Daphnia magna</i> mg/L EC50 |
| Benzotriazole 95-14-7 | 15.4: 96 h freshwater algae mg/L EC50 | 39: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 | | 141.6: 48 h water flea mg/L EC50 |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

| Chemical Name | Partition Coefficient |
|--|-----------------------|
| 2,2',2''-Nitrilotriethanol 102-71-6 | -2.53 |

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

| | |
|-------------|---|
| Note | Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. |
| DOT | Not regulated |
| IATA | Not regulated |
| IMDG | Not regulated |

15. REGULATORY INFORMATION

International Inventories

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|----------------------------|---------|-----|------|---------|--------|---------|-------|---------|-------|------|
| 2,2',2''-Nitrilotriethanol | Present | X | | Present | | Present | X | Present | X | X |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|--|------------|---------------|--------------|
| 2,2',2''-Nitrilotriethanol 102-71-6 | X | X | X |
| Benzotriazole 95-14-7 | | X | |

16. OTHER INFORMATION

| | | | | |
|--------------------|----------------------------|--------------------------|------------------------------|---------------------------------|
| <u>NFPA</u> | Health Hazards 1 | Flammability 0 | Instability 0 | Special Hazards - |
| <u>HMIS</u> | Health Hazards 1 | Flammability 0 | Physical Hazards 0 | Personal Protection A |

Issue Date: 26-Feb-2013
 Revision Date: 09-Jan-2018
 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



TFE™ Pipe Thread Sealant w/PTFE

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: TFE™ Pipe Thread Sealant w/PTFE

Manufacturer: Anti-Seize Technology
 2345 N. 17th Ave.
 Franklin Park, IL 60131
 Phone: 847-455-2300
 Toll Free: 800 991-1106
 Web: antiseize.com

Emergency Phone Number: Infotrac 24/7 Phone: 1-800-535-5053 (US & Canada)
 or 352-323-3500 (International)

Product Use: Pipe Thread Sealant
Restriction on Use: None known

SDS Date of Preparation: April 23, 2015

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):

Not Hazardous

Label Elements:

Not hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazard Phrases:

None

Precautionary Phrases:

None

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|--|------------|-------|
| Kaolin clay | 1332-58-7 | 35-45 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 15-30 |
| Calcium carbonate | 471-34-1 | 10-15 |
| Titanium Dioxide (bound in sealant) | 13463-67-7 | 5-10 |
| PTFE | 9002-84-0 | 10-20 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

Most Important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use extinguishing media suitable for the surrounding environment.

Special Hazards Arising from the Chemical: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact Do not transfer to unlabeled containers.

Conditions for Safe Storage, Including any Incompatibilities: Store away from extreme heat and open flames. Store away from concentrated oxygen.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|--|--|
| Kaolin clay | 2 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACHIH TLV (inhalable) 5 mg/m ³ TWA OSHA PEL |
| Calcium carbonate | 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Titanium Dioxide | 10 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) |
| PTFE | 15mg/m ³ TWA OSHA PEL (as respirable dust) |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact .

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

| |
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| SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES |
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| | |
|--|---|
| Appearance: White granular paste | Vapor Density (air = 1): Not available |
| Odor: Mild petroleum like odor | Specific Gravity: 1.5 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Neutral | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: >650°F | Decomposition Temperature: Not available |
| Flash Point: >350°F | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: Not established | Aerosol Fire Protection Level: Not applicable |
| VOC Content: <0.1% | Flammability (solid, gas): Not available |

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| SECTION 10: STABILITY AND REACTIVITY |
|---|

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Temperatures exceeding 550°F

Incompatible Materials: Avoid concentrated oxygen

Hazardous Decomposition Products: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

| |
|--|
| SECTION 11: TOXICOLOGICAL INFORMATION |
|--|

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause irritation and drying of the skin.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of thermal decomposition products may result in lung damage.

Carcinogen Status: Titanium dioxide is listed by IARC as a group 2B carcinogen (possible human carcinogen). Titanium dioxide is only known to cause cancer by inhalation. The titanium dioxide is bound in the product matrix so inhalation exposure does not occur during use. None of the other components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH, or the EU CLP.

Acute Toxicity Values:

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg, inhalation rat LC50: 2.18 mg/L, dermal rabbit LD50 > 2000 mg/kg

Calcium Carbonate: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 3 mg/L, dermal rat LD50 > 2000 mg/kg

Titanium dioxide: Oral mouse LD50 > 5000 mg/kg, inhalation rat LC50 > 6.82 mg/L

| |
|---|
| SECTION 12: ECOLOGICAL INFORMATION |
|---|

Ecotoxicity:

Distillates (petroleum), hydrotreated heavy naphthenic: Pimephales promelas LL50 > 100 mg/L/96hr.

Calcium Carbonate: Oncorhynchus mykiss LC50 > 100 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

| |
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| SECTION 13: DISPOSAL CONSIDERATIONS |
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Dispose in accordance with all local, regional and national regulations.

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|--|
| SECTION 14: TRANSPORT INFORMATION |
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DOT

Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

ICAO/IATA

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to reporting requirements under CERCLA. However, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not Hazardous

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

SECTION 16: OTHER INFORMATION

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



TFE™ Pipe Thread Sealant w/PTFE

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: TFE™ Pipe Thread Sealant w/PTFE

Manufacturer: Anti-Seize Technology
2345 N. 17th Ave.
Franklin Park, IL 60131
Phone: 847-455-2300
Toll Free: 800 991-1106
Web: antiseize.com

Emergency Phone Number: Infotrac 24/7 Phone: 1-800-535-5053 (US & Canada)
or 352-323-3500 (International)

Product Use: Pipe Thread Sealant
Restriction on Use: None known

SDS Date of Preparation: December 11, 2017

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):
Not Hazardous

Label Elements:
Not hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazard Phrases:
None

Precautionary Phrases:
None

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|--|------------|-------|
| Kaolin clay | 1332-58-7 | 35-45 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 15-30 |
| Calcium carbonate | 471-34-1 | 10-15 |
| Titanium Dioxide (bound in sealant) | 13463-67-7 | 5-10 |
| PTFE | 9002-84-0 | 10-20 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

Most Important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use extinguishing media suitable for the surrounding environment.

Special Hazards Arising from the Chemical: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Do not transfer to unlabeled containers.

Conditions for Safe Storage, Including any Incompatibilities: Store away from extreme heat and open flames. Store away from concentrated oxygen.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|--|--|
| Kaolin clay | 2 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACHIH TLV (inhalable) 5 mg/m ³ TWA OSHA PEL |
| Calcium carbonate | 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Titanium Dioxide | 10 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) |
| PTFE | 15mg/m ³ TWA OSHA PEL (as respirable dust) |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact .

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: White granular paste | Vapor Density (air = 1): Not available |
| Odor: Mild petroleum like odor | Specific Gravity: 1.5 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Neutral | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: >650°F | Decomposition Temperature: Not available |
| Flash Point: >350°F | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: Not established | Aerosol Fire Protection Level: Not applicable |
| VOC Content: <0.1% | Flammability (solid, gas): Not available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Temperatures exceeding 550°F

Incompatible Materials: Avoid concentrated oxygen

Hazardous Decomposition Products: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause irritation and drying of the skin.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of thermal decomposition products may result in lung damage.

Carcinogen Status: Titanium dioxide is listed by IARC as a group 2B carcinogen (possible human carcinogen). Titanium dioxide is only known to cause cancer by inhalation. The titanium dioxide is bound in the product matrix so inhalation exposure does not occur during use. None of the other components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH, or the EU CLP.

Acute Toxicity Values:

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg, inhalation rat LC50: 2.18 mg/L, dermal rabbit LD50 > 2000 mg/kg

Calcium Carbonate: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 3 mg/L, dermal rat LD50 > 2000 mg/kg

Titanium dioxide: Oral mouse LD50 > 5000 mg/kg, inhalation rat LC50 > 6.82 mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Distillates (petroleum), hydrotreated heavy naphthenic: Pimephales promelas LL50 > 100 mg/L/96hr.

Calcium Carbonate: Oncorhynchus mykiss LC50 > 100 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations.

SECTION 14: TRANSPORT INFORMATION

DOT

Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

ICAO/IATA

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to reporting requirements under CERCLA. However, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not Hazardous

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

SECTION 16: OTHER INFORMATION

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



ANTI-SEIZE TECHNOLOGY
A.S.T. Industries, Inc.

TFE™ Pipe Thread Sealant w/PTFE

Safety Data Sheet

| |
|----------------------------------|
| SECTION 1: IDENTIFICATION |
|----------------------------------|

Product Name: TFE™ Pipe Thread Sealant w/PTFE

Manufacturer: Anti-Seize Technology
 2345 N. 17th Ave.
 Franklin Park, IL 60131
 Phone: 847-455-2300
 Toll Free: 800 991-1106
 Web: antiseize.com

Emergency Phone Number: Infotrac 24/7 Phone: 1-800-535-5053 (US & Canada)
 or 352-323-3500 (International)

Product Use: Pipe Thread Sealant
Restriction on Use: None known

SDS Date of Preparation: December 11, 2017

| |
|--|
| SECTION 2: HAZARDS IDENTIFICATION |
|--|

GHS Classification (Hazcom 2012):
 Not Hazardous

Label Elements:
 Not hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazard Phrases:
 None

Precautionary Phrases:
 None

Other Hazards: None

| |
|--|
| SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS |
|--|

| Chemical Name | CAS# | % |
|--|------------|-------|
| Kaolin clay | 1332-58-7 | 35-45 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 15-30 |
| Calcium carbonate | 471-34-1 | 10-15 |
| Titanium Dioxide (bound in sealant) | 13463-67-7 | 5-10 |
| PTFE | 9002-84-0 | 10-20 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

Most Important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use extinguishing media suitable for the surrounding environment.

Special Hazards Arising from the Chemical: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Do not transfer to unlabeled containers.

Conditions for Safe Storage, Including any Incompatibilities: Store away from extreme heat and open flames. Store away from concentrated oxygen.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|--|--|
| Kaolin clay | 2 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACHIH TLV (inhalable) 5 mg/m ³ TWA OSHA PEL |
| Calcium carbonate | 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Titanium Dioxide | 10 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) |
| PTFE | 15mg/m ³ TWA OSHA PEL (as respirable dust) |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact .

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: White granular paste | Vapor Density (air = 1): Not available |
| Odor: Mild petroleum like odor | Specific Gravity: 1.5 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Neutral | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: >650°F | Decomposition Temperature: Not available |
| Flash Point: >350°F | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: Not established | Aerosol Fire Protection Level: Not applicable |
| VOC Content: <0.1% | Flammability (solid, gas): Not available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Temperatures exceeding 550°F

Incompatible Materials: Avoid concentrated oxygen

Hazardous Decomposition Products: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause irritation and drying of the skin.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of thermal decomposition products may result in lung damage.

Carcinogen Status: Titanium dioxide is listed by IARC as a group 2B carcinogen (possible human carcinogen). Titanium dioxide is only known to cause cancer by inhalation. The titanium dioxide is bound in the product matrix so inhalation exposure does not occur during use. None of the other components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH, or the EU CLP.

Acute Toxicity Values:

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg, inhalation rat LC50: 2.18 mg/L, dermal rabbit LD50 > 2000 mg/kg

Calcium Carbonate: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 3 mg/L, dermal rat LD50 > 2000 mg/kg

Titanium dioxide: Oral mouse LD50 > 5000 mg/kg, inhalation rat LC50 > 6.82 mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Distillates (petroleum), hydrotreated heavy naphthenic: Pimephales promelas LL50 > 100 mg/L/96hr.

Calcium Carbonate: Oncorhynchus mykiss LC50 > 100 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations.

SECTION 14: TRANSPORT INFORMATION

DOT

Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

ICAO/IATA

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to reporting requirements under CERCLA. However, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not Hazardous

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

SECTION 16: OTHER INFORMATION

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

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TFE™ Pipe Thread Sealant w/PTFE Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: TFE™ Pipe Thread Sealant w/PTFE

Manufacturer: Anti-Seize Technology
2345 N. 17th Ave.
Franklin Park, IL 60131
Phone: 847-455-2300
Toll Free: 800 991-1106
Web: antiseize.com

Emergency Phone Number: Infotrac 24/7 Phone: 1-800-535-5053 (US & Canada)
or 352-323-3500 (International)

Product Use: Pipe Thread Sealant
Restriction on Use: None known

SDS Date of Preparation: December 11, 2017

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):
Not Hazardous

Label Elements:
Not hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazard Phrases:
None

Precautionary Phrases:
None

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | % |
|--|------------|-------|
| Kaolin clay | 1332-58-7 | 35-45 |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 15-30 |
| Calcium carbonate | 471-34-1 | 10-15 |
| Titanium Dioxide (bound in sealant) | 13463-67-7 | 5-10 |
| PTFE | 9002-84-0 | 10-20 |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

Most Important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use extinguishing media suitable for the surrounding environment.

Special Hazards Arising from the Chemical: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Do not transfer to unlabeled containers.

Conditions for Safe Storage, Including any Incompatibilities: Store away from extreme heat and open flames. Store away from concentrated oxygen.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical Name | Exposure Limits |
|--|--|
| Kaolin clay | 2 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m ³ TWA ACHIH TLV (inhalable) 5 mg/m ³ TWA OSHA PEL |
| Calcium carbonate | 15 mg/m ³ TWA OSHA PEL (total dust) 5 mg/m ³ TWA OSHA PEL (respirable fraction) |
| Titanium Dioxide | 10 mg/m ³ TWA ACGIH TLV (respirable) 15 mg/m ³ TWA OSHA PEL (total dust) |
| PTFE | 15mg/m ³ TWA OSHA PEL (as respirable dust) |

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact .

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance: White granular paste | Vapor Density (air = 1): Not available |
| Odor: Mild petroleum like odor | Specific Gravity: 1.5 |
| Odor Threshold: Not established | Water Solubility: Not soluble |
| pH: Neutral | Octanol/Water Partition Coefficient: Not available |
| Melting Point/Freezing Point: Not available | Autoignition Temperature: Not available |
| Boiling Point: >650°F | Decomposition Temperature: Not available |
| Flash Point: >350°F | Viscosity: Not available |
| Evaporation Rate: Not available | Explosion Properties: None |
| Flammable Limits: LEL: Not established UEL: Not established | Oxidizing Properties: Not oxidizing |
| Vapor Pressure: Not established | Aerosol Fire Protection Level: Not applicable |
| VOC Content: <0.1% | Flammability (solid, gas): Not available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Temperatures exceeding 550°F

Incompatible Materials: Avoid concentrated oxygen

Hazardous Decomposition Products: Hazardous decomposition products may yield oxides of carbon and calcium, and fumes of fluorides.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause irritation and drying of the skin.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of thermal decomposition products may result in lung damage.

Carcinogen Status: Titanium dioxide is listed by IARC as a group 2B carcinogen (possible human carcinogen). Titanium dioxide is only known to cause cancer by inhalation. The titanium dioxide is bound in the product matrix so inhalation exposure does not occur during use. None of the other components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH, or the EU CLP.

Acute Toxicity Values:

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg, inhalation rat LC50: 2.18 mg/L, dermal rabbit LD50 > 2000 mg/kg

Calcium Carbonate: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 3 mg/L, dermal rat LD50 > 2000 mg/kg

Titanium dioxide: Oral mouse LD50 > 5000 mg/kg, inhalation rat LC50 > 6.82 mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Distillates (petroleum), hydrotreated heavy naphthenic: Pimephales promelas LL50 > 100 mg/L/96hr.

Calcium Carbonate: Oncorhynchus mykiss LC50 > 100 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations.

SECTION 14: TRANSPORT INFORMATION

DOT

Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

ICAO/IATA

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to reporting requirements under CERCLA. However, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not Hazardous

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.


CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

SECTION 16: OTHER INFORMATION

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Valvoline™ EXTRA STRENGTH STARTING FLUID

Recommended use of the chemical and restrictions on use

| | |
|---|--|
| <p>Details of the supplier of the safety data sheet Niteo Products, LLC P.O. Box 191629 Dallas TX 75219 United States of America</p> | <p>Emergency telephone number CHEMTREC DIRECT 1-800-424-9300</p> <p>Product Information 1-844-696-4836</p> |
|---|--|

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification


- Flammable aerosols : Category 1
- Acute toxicity (Oral) : Category 4
- Carcinogenicity : Category 2
- Reproductive toxicity : Category 2
- Specific target organ systemic toxicity - single exposure : Category 3 (Central nervous system)
- Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :   

Signal Word : Danger

Hazard Statements : Extremely flammable aerosol.

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Harmful if swallowed.
 May be fatal if swallowed and enters airways.
 May cause drowsiness or dizziness.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.

Precautionary Statements

: Prevention:

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.
 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 Wash skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
 IF exposed or concerned: Get medical advice/ attention.
 Do NOT induce vomiting.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
 Chemical nature : Static Accumulator
 Chemical nature : Defatter

Hazardous components

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| Chemical Name | CAS-No. | Classification | Concentration (%) |
|--|------------|--|-------------------|
| SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC | 64742-89-8 | Flam. Liq. 2; H225 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Acute 2; H401 Aquatic Chronic 2; H411 | 67.75 |
| ETHYL ETHER | 60-29-7 | Flam. Liq. 1; H224 Acute Tox. 4; H302 STOT SE 3; H336 | 29.33 |
| n-HEPTANE | 142-82-5 | Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 | 2.71 |
| CARBON DIOXIDE | 124-38-9 | Press. Gas Liquefied gas; H280 | 2.01 |
| ETHANOL | 64-17-5 | Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336 | 1.75 |
| ETHYL CHLORIDE | 75-00-3 | Flam. Gas 1; H220 Carc. 2; H351 | 0.43 |
| TOLUENE | 108-88-3 | Flam. Liq. 2; H225 | 0.18 |

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| | | | |
|--|--|--|--|
| | | Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Repr. 2; H361 STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1; H304 | |
|--|--|--|--|

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
 Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.
- If inhaled : Move to fresh air.
 If unconscious place in recovery position and seek medical advice.
 Consult a physician after significant exposure.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
 If on skin, rinse well with water.
 Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.
 Remove contact lenses.
 Protect unharmed eye.
 If eye irritation persists, consult a specialist.
- If swallowed : Obtain medical attention.
 Rinse mouth with water.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.


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Harmful if swallowed.
 May be fatal if swallowed and enters airways.
 May cause drowsiness or dizziness.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.
 Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 Cough
 loss of appetite
 confusion
 irregular heartbeat
 respiratory failure

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Alcohol-resistant foam
 Carbon dioxide (CO₂)
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.
 Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
 Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Aldehydes
 carbon dioxide and carbon monoxide
 organic compounds
 Hydrocarbons
 formaldehyde-like
- Specific extinguishing methods :
 Product is compatible with standard fire-fighting agents.

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Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Use a water spray to cool fully closed containers.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Remove all sources of ignition.
Use personal protective equipment.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Other information : Comply with all applicable federal, state, and local regulations.
Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Open drum carefully as content may be under pressure.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Take precautionary measures against static discharges.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
Container may be opened only under exhaust ventilation hood.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.

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Keep container tightly closed in a dry and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Observe label precautions.
 No smoking.
 Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|------------|----------------------------------|---|-------------|
| SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC | 64742-89-8 | TWA | 500 ppm | OSHA_TRANS |
| | | TWA | 300 ppm | ACGIH |
| | | TWA | 2,000 mg/m3 | OSHA_TRANS |
| ETHYL ETHER | 60-29-7 | TWA | 1,370 mg/m3 | ACGIH |
| | | TWA | 400 ppm | ACGIH |
| | | STEL | 500 ppm | ACGIH |
| | | PEL | 400 ppm 1,200 mg/m3 | OSHA_TRANS |
| | | TWA | 400 ppm 1,200 mg/m3 | TN OEL |
| n-HEPTANE | 142-82-5 | STEL | 500 ppm 1,500 mg/m3 | TN OEL |
| | | REL | 85 ppm 350 mg/m3 | NIOSH/GUIDE |
| | | Ceil_Time | 440 ppm 1,800 mg/m3 | NIOSH/GUIDE |
| | | PEL | 500 ppm 2,000 mg/m3 | OSHA_TRANS |
| | | TWA | 400 ppm | ACGIH |
| CARBON DIOXIDE | 124-38-9 | STEL | 500 ppm | ACGIH |
| | | TWA | 5,000 ppm | ACGIH |
| | | STEL | 30,000 ppm | ACGIH |
| | | REL | 5,000 ppm 9,000 mg/m3 | NIOSH/GUIDE |
| | | STEL | 30,000 ppm 54,000 mg/m3 | NIOSH/GUIDE |
| ETHANOL | 64-17-5 | PEL | 5,000 ppm 9,000 mg/m3 | OSHA_TRANS |
| | | REL | 1,000 ppm 1,900 mg/m3 | NIOSH/GUIDE |

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| | | | | |
|--|------------|-----------|--------------------------|-------------|
| | | PEL | 1,000 ppm 1,900 mg/m3 | OSHA_TRANS |
| | | STEL | 1,000 ppm | ACGIH |
| | | TWA | 1,000 ppm 1,900 mg/m3 | Z1A |
| DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC | 64742-53-6 | PEL | 500 ppm 2,000 mg/m3 | OSHA_TRANS |
| | | REL | 5 mg/m3 Mist. | NIOSH/GUIDE |
| | | STEL | 10 mg/m3 Mist. | NIOSH/GUIDE |
| | | PEL | 5 mg/m3 Mist. | OSHA_TRANS |
| ETHYL CHLORIDE | 75-00-3 | TWA | 100 ppm | ACGIH |
| | | PEL | 1,000 ppm 2,600 mg/m3 | OSHA_TRANS |
| | | TWA | 1,000 ppm 2,600 mg/m3 | Z1A |
| TOLUENE | 108-88-3 | TWA | 20 ppm | ACGIH |
| | | REL | 100 ppm 375 mg/m3 | NIOSH/GUIDE |
| | | STEL | 150 ppm 560 mg/m3 | NIOSH/GUIDE |
| | | TWA | 200 ppm | OSHA/Z2 |
| | | Ceiling | 300 ppm | OSHA/Z2 |
| | | MAX. CONC | 500 ppm | OSHA/Z2 |


Biological occupational exposure limits

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|------------|------------|---------------------------------|------------------------|--|---------------------------|-------|
| TOLUENE | 108-88-3 | o-Cresol, with hydrolysis | Creatinine in urine | Sampling time: End of shift. | 0.3 mg/g | |
| Remarks: | Background | | | | | |
| | | toluene | Urine | Sampling time: End of shift. | 0.03 mg/l | |
| | | toluene | Blood | Sampling time: Prior to last shift of work week. | 0.02 mg/l | |

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

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In the case of dust or aerosol formation use respirator with an approved filter.

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

- Hand protection
Material : Nitrile rubber
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.
- Skin and body protection : Wear as appropriate:
impervious clothing
Safety shoes
Flame-resistant clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : aerosol
- Colour : colourless
- Odour : ether-like
- Odour Threshold : No data available
- pH : No data available
- : No data available
- Boiling point/boiling range : 94.3 °F / 34.6 °C

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| | |
|--|--|
| | (1,013.232 hPa) |
| | Calculated Phase Transition Liquid/Gas |
| Flash point | : -49 °F / -45 °C |
| | Calculated Flash Point |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Upper explosion limit | : 36.5 %(V) |
| | Calculated Explosive Limit |
| Lower explosion limit | : 1.05 %(V) |
| | Calculated Explosive Limit |
| Vapour pressure | : 717.2616 hPa (25 °C) |
| | Calculated Vapor Pressure |
| Relative vapour density | : No data available |
| Relative density | : No data available |
| Density | : 0.706 g/cm ³ (15.56 °C) |
| Solubility(ies) | |
| Water solubility | : No data available |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Thermal decomposition | : No data available |
| Viscosity | |
| Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : No data available |
| Oxidizing properties | : No data available |

SECTION 10. STABILITY AND REACTIVITY

| | |
|------------------------------------|---|
| Reactivity | : No decomposition if stored and applied as directed. |
| Chemical stability | : Stable under recommended storage conditions. |
| Possibility of hazardous reactions | : Vapours may form explosive mixture with air. |
| Conditions to avoid | : Heat, flames and sparks. excessive heat |

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Incompatible materials : Acids
 Alkali metals
 Ammonia
 Bases
 halogens
 inorganic materials
 Oxidizing agents
 sodium
 Sulphur compounds

Hazardous decomposition products : Aldehydes
 carbon dioxide and carbon monoxide
 formaldehyde-like
 Hydrocarbons
 organic compounds

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
 Skin contact
 Eye Contact
 Ingestion

Acute toxicity

Harmful if swallowed.

Components:
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC:

Acute oral toxicity : LD 50 (Rat): > 8,000 mg/kg

 Acute inhalation toxicity : LC 50 (Rat): 3400 ppm
 Exposure time: 4 h
 Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rat): > 4,000 mg/kg

ETHYL ETHER:

Acute oral toxicity : LD50 (Rat): 1,200 - 1,700 mg/kg

 Acute inhalation toxicity : LC 50 (Rat): 32,000 mg/l
 Exposure time: 4 h

n-HEPTANE:

 Acute oral toxicity : LD 50 (Rat): Expected > 5,000 mg/kg
 Remarks: Information given is based on data obtained from similar substances.

 Acute inhalation toxicity : LC 50 (Rat, male and female): > 29.29 mg/l
 Exposure time: 4 h
 Test atmosphere: vapour

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Method: OECD Test Guideline 403

Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): Expected > 2,000 mg/kg
Assessment: Not classified as acutely toxic by dermal absorption under GHS.
Remarks: Information given is based on data obtained from similar substances.

ETHANOL:

Acute oral toxicity : LD 50 (Rat): 7,060 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 117 - 125 mg/l
Exposure time: 4 h

LC 50 (Mouse): 39 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD Lo (Rabbit): 20 g/kg

ETHYL CHLORIDE:

Acute inhalation toxicity : LC 50 (Rat): > 19000 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

TOLUENE:

Acute oral toxicity : LD 50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 8000 ppm
Exposure time: 4 h

Acute dermal toxicity : LD 50 (Rabbit): 12,124 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Components:

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC:
Result: Mildly irritating to skin

ETHYL ETHER:


Result: Irritating to skin

n-HEPTANE:

Result: Irritating to skin

CARBON DIOXIDE:

Result: Not irritating to skin

| | | |
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ETHANOL:

Result: Slightly irritating to skin

ETHYL CHLORIDE:

Result: Mildly irritating to skin

TOLUENE:

Result: Irritating to skin

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC:

Result: Mildly irritating to eyes

ETHYL ETHER:

Result: Severely irritating to eyes

n-HEPTANE:

Result: Mildly irritating to eyes

CARBON DIOXIDE:

Result: Not irritating to eyes

ETHANOL:

Result: Irritating to eyes

ETHYL CHLORIDE:

Result: Mildly irritating to eyes

TOLUENE:

Result: Irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

n-HEPTANE:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity


Not classified based on available information.

Components:

n-HEPTANE:

Genotoxicity in vitro

: Test Type: Chromosome aberration test in vitro
 Test species: rat hepatocytes
 Method: OECD Test Guideline 473

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Result: negative

: Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity

Suspected of causing cancer.

Components:

ETHYL CHLORIDE:

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Components:

TOLUENE:

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

ETHYL ETHER:

Assessment: May cause drowsiness or dizziness.

n-HEPTANE:

Assessment: May cause drowsiness or dizziness.

ETHANOL:

Assessment: May cause drowsiness or dizziness.

TOLUENE:

Exposure routes: Inhalation

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Components:

TOLUENE:

Exposure routes: Inhalation

Target Organs: Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)

Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity


May be fatal if swallowed and enters airways.

Components:

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC:

May be fatal if swallowed and enters airways.

n-HEPTANE:

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May be fatal if swallowed and enters airways.

TOLUENE:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

Components:

ETHYL CHLORIDE:

Remarks: Liver

Remarks: Central nervous system

Carcinogenicity:

IARC

Group 1: Carcinogenic to humans

DISTILLATES 64742-53-6
(PETROLEUM),
HYDROTREATED LIGHT
NAPHTHENIC

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

Known to be human carcinogen

DISTILLATES 64742-53-6
(PETROLEUM),
HYDROTREATED LIGHT
NAPHTHENIC

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

n-HEPTANE:

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 1.5 mg/l
Exposure time: 48 h
Test Type: static test

LC 50 (Mysidopsis bahia (opossum shrimp)): 0.1 mg/l
Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : NOELR (Water flea (Daphnia magna)): 1 mg/l
Exposure time: 21 d

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(Chronic toxicity) Test Type: static test
 Test substance: WAF
 Method: OECD Test Guideline 211
 Remarks: Information given is based on data obtained from similar substances.

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

ETHANOL:

Toxicity to fish : LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 12,000 - 16,000 mg/l
 Exposure time: 96 h
 Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): > 10,000 mg/l
 Exposure time: 48 h
 Test Type: static test

ETHYL CHLORIDE:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): 58 mg/l
 Exposure time: 48 h
 Test Type: static test
 Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 118 mg/l
 End point: Growth inhibition
 Exposure time: 72 h
 Test Type: static test
 Method: Directive 67/548/EEC, Annex V, C.3.

TOLUENE:

Toxicity to fish : LC50 (Oncorhynchus kisutch (coho salmon)): 5.5 mg/l
 Exposure time: 96 h
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Ceriodaphnia dubia)): 3.78 mg/l
 Exposure time: 48 h
 Remarks: Mortality

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 433 mg/l
 End point: Growth inhibition
 Exposure time: 96 h
 NOEC (Scenedesmus quadricauda (Green algae)): > 400 mg/l
 End point: Growth inhibition
 Exposure time: 7 d

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Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 1.39 mg/l
 Exposure time: 40 d
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Water flea (Ceriodaphnia dubia)): 0.74 mg/l
 Exposure time: 7 d

Persistence and degradability

n-HEPTANE:

Biodegradability : Result: Readily biodegradable

ETHYL CHLORIDE:

Biodegradability : Inoculum: activated sludge
 Result: Not readily biodegradable.
 Biodegradation: 0 %
 Exposure time: 28 d
 Method: Directive 67/548/EEC Annex V, C.4.E.

TOLUENE:

Biodegradability : Result: Readily biodegradable

Bioaccumulative potential

ETHYL ETHER:

Partition coefficient: n-octanol/water : log Pow: 0.89

n-HEPTANE:

Partition coefficient: n-octanol/water : log Pow: 4.66

ETHANOL:

Partition coefficient: n-octanol/water : log Pow: -0.31

ETHYL CHLORIDE:

Partition coefficient: n-octanol/water : log Pow: 1.43

TOLUENE:

Bioaccumulation : Species: Ide, silver or golden orfe (Leuciscus idus)
 Bioconcentration factor (BCF): 94
 Exposure time: 3 d
 Concentration: 0.05 mg/l
 Method: Not reported

Partition coefficient: n-octanol/water : log Pow: 2.73

Mobility in soil

No data available

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Other adverse effects

No data available

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

| ID NUMBER | PROPER SHIPPING NAME | *HAZARD CLASS | SUBSIDIARY HAZARDS | PACKING GROUP | MARINE POLLUTANT / LTD. QTY. |
|-----------|----------------------|---------------|--------------------|---------------|------------------------------|
|-----------|----------------------|---------------|--------------------|---------------|------------------------------|

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

| | | | | | |
|----|------|----------|---|--|------------------|
| UN | 1950 | Aerosols | 2 | | LIMITED QUANTITY |
|----|------|----------|---|--|------------------|

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

| | | | | | |
|----|------|----------|-----|--|------------------|
| UN | 1950 | Aerosols | 2.1 | | LIMITED QUANTITY |
|----|------|----------|-----|--|------------------|

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

| | | | | | |
|----|------|----------|-----|--|------------------|
| UN | 1950 | Aerosols | 2.1 | | LIMITED QUANTITY |
|----|------|----------|-----|--|------------------|

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INTERNATIONAL MARITIME DANGEROUS GOODS

| | | | | |
|----|------|----------|-----|------------------|
| UN | 1950 | AEROSOLS | 2.1 | LIMITED QUANTITY |
|----|------|----------|-----|------------------|

TRANSPORT CANADA - INLAND WATERWAYS

| | | | | |
|----|------|----------|-----|------------------|
| UN | 1950 | AEROSOLS | 2.1 | LIMITED QUANTITY |
|----|------|----------|-----|------------------|

TRANSPORT CANADA - RAIL

| | | | | |
|----|------|----------|-----|------------------|
| UN | 1950 | AEROSOLS | 2.1 | LIMITED QUANTITY |
|----|------|----------|-----|------------------|

TRANSPORT CANADA - ROAD

| | | | | |
|----|------|----------|-----|--|
| UN | 1950 | AEROSOLS | 2.1 | MARINE POLLUTANT:(ALIPHATIC PETROLEUM NAPHTHA)LIMITED QUANTITY |
|----|------|----------|-----|--|

U.S. DOT - INLAND WATERWAYS

| | | | | |
|----|------|---|-----|--|
| UN | 1950 | Aerosols, flammable (engine starting fluid) | 2.1 | |
|----|------|---|-----|--|

U.S. DOT - RAIL

| | | | | |
|----|------|---|-----|--|
| UN | 1950 | Aerosols, flammable (engine starting fluid) | 2.1 | |
|----|------|---|-----|--|

U.S. DOT - ROAD

| | | | | |
|----|------|----------|-----|--|
| UN | 1950 | AEROSOLS | 2.1 | |
|----|------|----------|-----|--|

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

| | |
|------------------|-----|
| Marine pollutant | yes |
|------------------|-----|

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

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SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|-------------|---------|--------------------|-----------------------------|
| ETHYL ETHER | 60-29-7 | 100 | 340.921101 |

SARA 311/312 Hazards : Fire Hazard
Chronic Health Hazard
Acute Health Hazard

SARA 313 Component(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Right To Know

| | | |
|--|------------|-----------------|
| SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC | 64742-89-8 | 50.00 - 70.00 % |
| ETHYL ETHER | 60-29-7 | 20.00 - 30.00 % |
| n-HEPTANE | 142-82-5 | 1.00 - 5.00 % |
| CARBON DIOXIDE | 124-38-9 | 1.00 - 5.00 % |
| ETHANOL | 64-17-5 | 1.00 - 5.00 % |

New Jersey Right To Know

| | | |
|--|------------|-----------------|
| SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC | 64742-89-8 | 50.00 - 70.00 % |
| ETHYL ETHER | 60-29-7 | 20.00 - 30.00 % |
| n-HEPTANE | 142-82-5 | 1.00 - 5.00 % |
| CARBON DIOXIDE | 124-38-9 | 1.00 - 5.00 % |
| ETHANOL | 64-17-5 | 1.00 - 5.00 % |
| DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC | 64742-53-6 | 0.10 - 1.00 % |
| TOLUENE | 108-88-3 | 0.10 - 1.00 % |

California Prop 65 Proposition 65 warnings are not required for this product based on the results of a risk assessment.

The components of this product are reported in the following inventories:

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- TSCA : On TSCA Inventory
- DSL : All components of this product are on the Canadian DSL.
- AICS : On the inventory, or in compliance with the inventory
- NZIOC : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION
Further information


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| NFPA: | HMIS III: | | | | | | |
|--|---|---------------|----------|---------------------|----------|------------------------|----------|
| <p style="text-align: center;">Flammability</p> <p style="text-align: center;">Special hazard.</p> | <table border="1" style="width: 100%;"> <tr> <td style="background-color: blue; color: white; text-align: center;">HEALTH</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: red; color: white; text-align: center;">FLAMMABILITY</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="background-color: yellow; text-align: center;">PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p> | HEALTH | 2 | FLAMMABILITY | 4 | PHYSICAL HAZARD | 0 |
| HEALTH | 2 | | | | | | |
| FLAMMABILITY | 4 | | | | | | |
| PHYSICAL HAZARD | 0 | | | | | | |

NFPA Flammable and Combustible Liquids Classification

Not applicable

Full text of H-Statements referred to under sections 2 and 3.

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| | |
|-------|---|
| H220 | Extremely flammable gas. |
| H224 | Extremely flammable liquid and vapor. |
| H225 | Highly flammable liquid and vapor. |
| H280 | Contains gas under pressure; may explode if heated. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H333 | May be harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H361d | Suspected of damaging the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled. |
| H400 | Very toxic to aquatic life. |
| H401 | Toxic to aquatic life. |
| H402 | Harmful to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Sources of key data used to compile the Safety Data Sheet

Internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

Cefic, the European Chemical Industry Council.

ESIS European Chemical Substances Information System

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Niteo's Environmental Health and Safety Department (1-844-696-4836).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).


ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

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LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System



Safety Data Sheet California CARB Compliant

1 - Identification

| | |
|--|---|
| <p>Product Name: WD-40 Multi-Use Product Aerosol</p> <p>Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p>Restrictions on Use: None identified</p> <p>SDS Date Of Preparation: March 5, 2019</p> | <p>Manufacturer: WD-40 Company</p> <p>Address: 9715 Businesspark Avenue San Diego, California, USA 92131</p> <p>Telephone:</p> <p>Emergency: 1-888-324-7596</p> <p>Information: 1-888-324-7596</p> <p>Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)</p> |
|--|---|

2 – Hazards Identification

Hazcom 2012/GHS Classification:

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:



DANGER!

Extremely Flammable Aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Prevention

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing vapors or mists.

Use only outdoors or in a well-ventilated area.

Response

IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Storage

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

Disposal

Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

| Ingredient | CAS # | Weight Percent | US Hazcom 2012/ GHS Classification |
|---------------------------|--|----------------|---|
| LVP Aliphatic Hydrocarbon | 64742-47-8 | 45-50% | Aspiration Toxicity Category 1 |
| Petroleum Base Oil | 64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8 | <35% | Not Hazardous |
| Aliphatic Hydrocarbon | 64742-47-8 | <25% | Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects) |
| Carbon Dioxide | 124-38-9 | 2-3% | Simple Asphyxiant Gas Under Pressure, Compressed Gas |

Note: The specific chemical identity and exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

Signs and Symptoms of Exposure: Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage. May cause eye and respiratory irritation. Inhalation of mists or vapors may cause drowsiness, dizziness and other nervous system effects. Skin contact may cause drying of the skin.

Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

| Chemical | Occupational Exposure Limits |
|---------------------------|---|
| LVP Aliphatic Hydrocarbon | 1200 mg/m ³ TWA (manufacturer recommended) |
| Petroleum Base Oil | 5 mg/m ³ TWA (Inhalable) ACGIH TLV (as Mineral oil) 5 mg/m ³ TWA OSHA PEL (as Oil mist, mineral) |
| Aliphatic Hydrocarbon | 1200 mg/m ³ TWA (manufacturer recommended) |
| Carbon Dioxide | 5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA OSHA PEL |

The Following Controls are Recommended for Normal Consumer Use of this Product

Appropriate Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

| | | | |
|-------------------------|---|---|------------------------|
| Appearance: | Light amber liquid | Flammable Limits: (Solvent Portion) | LEL: 0.6% UEL: 8% |
| Odor: | Mild petroleum odor | Vapor Pressure: | 95-115 PSI @ 70°F |
| Odor Threshold: | Not established | Vapor Density: | Greater than 1 (air=1) |
| pH: | Not Applicable | Relative Density: | 0.8 – 0.82 @ 60°F |
| Melting/Freezing Point: | Not established | Solubilities: | Insoluble in water |
| Boiling Point/Range: | 361 - 369°F (183 - 187°C) | Partition Coefficient; n- octanol/water: | Not established |
| Flash Point: | 138°F (59°C) Tag Closed Cup (liquid) | Autoignition Temperature: | Not established |

| | | | |
|----------------------------|---------------------------|----------------------------|----------------------------|
| Evaporation Rate: | Not established | Decomposition Temperature: | Not established |
| Flammability (solid, gas): | Flammable Aerosol | Viscosity: | 2.79-2.96 cSt @ 100°F |
| VOC: | 24.1% MIR=0.43gO3/gVOC | Pour Point: | -63°C (-81.4°F) ASTM D-97 |

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions

Chemical Stability: Stable

Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.

Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.

Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

Chronic Effects: None expected.

Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:

Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms

Persistence and Degradability: Components are readily biodegradable.

Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.

Mobility in Soil: No data available

Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

16 – Other Information

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: March 5, 2019

Supersedes: July 19, 2018

Revision Summary: Section 9 update VOC data

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski

Regulatory Affairs Dept.

1012200/No.0084704

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WELD-ON® P-70™ Low VOC Primer for PVC and CPVC Plastic Pipe
PRODUCT USE: Low VOC Primer for PVC and CPVC Plastic Pipe
SUPPLIER:

MANUFACTURER: IPS Corporation
 17109 South Main Street, Gardena, CA 90248-3127
 P.O. Box 379, Gardena, CA 90247-0379
 Tel. 1-310-898-3300

EMERGENCY: Transportation: CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International) **Medical:** CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

| Health | | Environmental | | Physical | |
|----------------------|------------|-------------------|------------|------------------|------------|
| Acute Oral Toxicity: | Category 4 | Acute Toxicity: | None Known | Flammable Liquid | Category 2 |
| Skin Irritation: | Category 3 | Chronic Toxicity: | None Known | | |
| Skin Sensitization: | NO | | | | |
| Carcinogenicity: | Category 2 | | | | |
| Eye: | Category 2 | | | | |

GHS LABEL:



Signal Word:
Danger

WHMIS CLASSIFICATION: CLASS B, DIVISION 2
CLASS D, DIVISION 2B

| Hazard Statements | Precautionary Statements |
|--|---|
| H225: Highly flammable liquid and vapor H319: Causes serious eye irritation H332: Harmful if inhaled H335: May cause respiratory irritation H336: May cause drowsiness or dizziness H351: Suspected of causing cancer EUH019: May form explosive peroxides | P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking P261: Avoid breathing dust/fume/gas/mist/vapors/spray P280: Wear protective gloves/protective clothing/eye protection/face protection P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P403+P233: Store in a well ventilated place. Keep container tightly closed P501: Dispose of contents/container in accordance with local regulation |

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

| | CAS | EINECS | REACH Registration Number | CONCENTRATION % by Weight |
|---------------------------|----------|-----------|------------------------------|------------------------------|
| Tetrahydrofuran (THF) | 109-99-9 | 203-726-8 | 01-2119444314-46-0000 | 45 - 59 |
| Methyl Ethyl Ketone (MEK) | 78-93-3 | 201-159-0 | 01-2119457290-43-0000 | 19 - 29 |
| Cyclohexanone | 108-94-1 | 203-631-1 | 01-2119453616-35-0000 | 5 - 15 |
| Acetone | 67-64-1 | 200-662-2 | 01-2119471330-49-0000 | 5 - 20 |

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.
 * Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).
 # indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

Contact with eyes: Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.
Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.
Inhalation: Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion: Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.
Likely Routes of Exposure: Inhalation, Eye and Skin Contact
Acute symptoms and effects:
Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
Eye Contact: Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.
Skin Contact: Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Ingestion: May cause nausea, vomiting, diarrhea and mental sluggishness.
Chronic (long-term) effects: Category 2 Carcinogen

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.
Unsuitable Extinguishing Media: Water spray or stream.
Exposure Hazards: Inhalation and dermal contact
Combustion Products: Oxides of carbon and smoke
Protection for Firefighters: Self-contained breathing apparatus or full-face positive pressure airline masks.

| | HMIS | NFPA | 0-Minimal |
|--------------|------|------|------------|
| Health | 2 | 2 | 1-Slight |
| Flammability | 3 | 3 | 2-Moderate |
| Reactivity | 0 | 0 | 3-Serious |
| PPE | B | | 4-Severe |

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep away from heat, sparks and open flame.
 Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment.
 Prevent contact with skin or eyes (see section 8).
Environmental Precautions: Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.
Methods for Cleaning up: Clean up with sand or other inert absorbent material. Transfer to a closable steel vessel.
Materials not to be used for clean up: Aluminum or plastic containers

SECTION 7 - HANDLING AND STORAGE

Handling: Avoid breathing of vapor, avoid contact with eyes, skin and clothing.
 Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods.
 Do not eat, drink or smoke while handling.
Storage: Store in ventilated room or shade below 44°C (110°F) and away from direct sunlight.
 Keep away from ignition sources and incompatible materials: caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.
 Follow all precautionary information on container label, product bulletins and solvent cementing literature.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

| EXPOSURE LIMITS: | Component | ACGIH 8 hour TLV | ACGIH 15 min STEL | OSHA 8 hour PEL | OSHA 15 min STEL | OSHA PEL-Ceiling | CAL/OSHA 8 hour PEL | CAL/OSHA Ceiling | CAL/OSHA 15 min STEL |
|------------------|---------------------------|---------------------|----------------------|--------------------|---------------------|---------------------|------------------------|---------------------|-------------------------|
| | Tetrahydrofuran (THF) | 50 ppm | 100 ppm | 200 ppm | N/E | N/E | 200 ppm | N/E | 250 ppm |
| | Methyl Ethyl Ketone (MEK) | 200 ppm | 300 ppm | 200 ppm | N/E | N/E | 200 ppm | N/E | 300 ppm |
| | Cyclohexanone | 20 ppm | 50 ppm | 50 ppm | N/E | N/E | 25 ppm | N/E | N/E |
| | Acetone | 250 ppm | 500 ppm | 1000 ppm | N/E | N/E | 500 ppm | 3000 ppm | 750 ppm |

Engineering Controls: Use local exhaust as needed.
Monitoring: Maintain breathing zone airborne concentrations below exposure limits.
Personal Protective Equipment (PPE):
Eye Protection: Avoid contact with eyes, wear splash-proof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as may be appropriate for the exposure.
Skin Protection: Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion.
 Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.
Respiratory Protection: Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above.
 With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.



GHS SAFETY DATA SHEET

WELD-ON® P-70™ Low VOC Primer for PVC and CPVC Plastic Pipe

Date Revised: JAN 2019
Supersedes: DEC 2018

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--|-------------------------------|---|
| Appearance: | Clear or purple, thin liquid | Odor Threshold: | 0.88 ppm (Cyclohexanone) |
| Odor: | Ethereal | Boiling Range: | 56°C (133°F) to 156°C (313°F) |
| pH: | Not Applicable | Evaporation Rate: | > 1.0 (BUAC = 1) |
| Melting/Freezing Point: | -108.5°C (-163.3°F) Based on first melting component: THF | Flammability: | Category 2 |
| Boiling Point: | 56°C (133°F) Based on first boiling component: Acetone | Flammability Limits: | LEL: 1.1% based on Cyclohexanone UEL: 12.8% based on Acetone |
| Flash Point: | -20°C (-4°F) TCC based on Acetone | Vapor Pressure: | 190 mm Hg @ 20°C (68°F) Acetone |
| Specific Gravity: | 0.858 @ 23°C (73°F) | Vapor Density: | >2.0 (Air = 1) |
| Solubility: | Solvent portion soluble in water. | Other Data: Viscosity: | Water-thin |
| Partition Coefficient n-octanol/water: | Not Available | | |
| Auto-ignition Temperature: | 321°C (610°F) based on THF | | |
| Decomposition Temperature: | Not Applicable | | |
| VOC Content: | When applied as directed, per SCAQMD Rule 1168, Test Method 316A, VOC content is: ≤ 550 g/l. | | |

SECTION 10 - STABILITY AND REACTIVITY

| | |
|--|---|
| Stability: | Stable |
| Hazardous decomposition products: | None in normal use. When forced to burn, this product gives off oxides of carbon and smoke. |
| Conditions to avoid: | Keep away from heat, sparks, open flame and other ignition sources. |
| Incompatible Materials: | Oxidizers, strong acids and bases, amines, ammonia |

SECTION 11 - TOXICOLOGICAL INFORMATION

| | | | | | |
|---------------------------|---|-------------|--|-------------|----------------------|
| Toxicity: | | LD50 | | LC50 | Target Organs |
| Tetrahydrofuran (THF) | Oral: 2842 mg/kg (rat) | | Inhalation 3 hrs. 21,000 mg/m ³ (rat) | | STOT SE3 |
| Methyl Ethyl Ketone (MEK) | Oral: 2737 mg/kg (rat), Dermal: 6480 mg/kg (rabbit) | | Inhalation 8 hrs. 23,500 mg/m ³ (rat) | | STOT SE3 |
| Cyclohexanone | Oral: 1535 mg/kg (rat), Dermal: 948 mg/kg (rabbit) | | Inhalation 4 hrs. 8,000 PPM (rat) | | |
| Acetone | Oral: 5800 mg/kg (rat) | | Inhalation 50,100 mg/m ³ (rat) | | STOT SE3 |

| Reproductive Effects | Teratogenicity | Mutagenicity | Embryotoxicity | Sensitization to Product | Synergistic Products |
|----------------------|-----------------|-----------------|-----------------|--------------------------|----------------------|
| Not Established | Not Established | Not Established | Not Established | Not Established | Not Established |

SECTION 12 - ECOLOGICAL INFORMATION

| | |
|--------------------------|---|
| Ecotoxicity: | None Known |
| Mobility in Soil: | If released into the environment, this product can move rapidly through the soil. |
| Degradability: | Not available |
| Bioaccumulation: | Minimal to none. |

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult disposal expert.

SECTION 14 - TRANSPORT INFORMATION

| | |
|-------------------------------|---|
| Proper Shipping Name: | Flammable Liquid, n.o.s. (Acetone, Tetrahydrofuran) |
| Hazard Class: | 3 |
| Secondary Risk: | None |
| Identification Number: | UN 1993 |
| Packing Group: | PG II |
| Label Required: | Class 3 Flammable Liquid |
| Marine Pollutant: | NO |

| EXCEPTION for Ground Shipping |
|---|
| DOT Limited Quantity: Up to 1L per inner packaging, 30 kg gross weight per package. |
| Consumer Commodity: Depending on packaging, these quantities may qualify under DOT as "ORM-D". |

| TDG INFORMATION |
|---|
| TDG CLASS: FLAMMABLE LIQUID 3 |
| SHIPPING NAME: Flammable Liquid, n.o.s. (Acetone, Tetrahydrofuran) |
| UN NUMBER/PACKING GROUP: UN 1993, PG II |

SECTION 15 - REGULATORY INFORMATION

| | | |
|---|---|---|
| Precautionary Label Information: | Highly Flammable, Irritant, (Carc.-THF) Cat. 2 | Ingredient Listings: USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS) |
| Symbols: | F, Xi | |
| Risk Phrases: | R11: Highly flammable. R20: Harmful by inhalation. R36/37: Irritating to eyes and respiratory system. | R66: Repeated exposure may cause skin dryness or cracking R67: Vapors may cause drowsiness and dizziness |
| Safety Phrases: | S9: Keep container in a well-ventilated place. S16: Keep away from sources of ignition - No smoking. S25: Avoid contact with eyes. | S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S33: Take precautionary measures against static discharges. S46: If swallowed, seek medical advice immediately and show this container or label. |
| Compliance Statement: | This SDS was prepared to be in accordance with: US OSHA Hazard Communication Standard 29 CFR 1910.1200 (Rev 2012) European Regulation (EC) No (EU) 2015/830 on classification, labelling and packaging of substances and mixtures | |

SECTION 16 - OTHER INFORMATION

| | |
|---|--|
| Specification information: | |
| Department issuing data sheet: | IPS, Safety Health & Environmental Affairs |
| E-mail address: | <EHSinfo@ipscorp.com> |
| Training necessary: | Yes, training in practices and procedures contained in product literature. |
| Reissue date / reason for reissue: | 1/11/2019 / Updated GHS Standard Format |
| Intended Use of Product: | Primer for PVC and CPVC Plastic Pipe |

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.



GHS SAFETY DATA SHEET

Date Revised: APR 2015

Weld-On® Soft Seal Plumbers Putty

Supersedes: NOV 2014

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Weld-On® Soft Seal Plumbers Putty

PRODUCT USE: Plumbers Putty

SUPPLIER:

MANUFACTURER: IPS Corporation
 17109 South Main Street, Gardena, CA 90248-3127
 P.O. Box 379, Gardena, CA 90247-0379
 Tel. 1-310-898-3300

EMERGENCY: Transportation: CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International) Medical: CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

| Health | | Environmental | | Physical |
|---------------------|-----------------|-------------------|-----------------|------------|
| Acute Toxicity: | Not Established | Acute Toxicity: | Not Established | None Known |
| Skin Irritation: | Not Established | Chronic Toxicity: | Not Established | |
| Skin Sensitization: | NO | | | |
| Eye: | Not Established | | | |
| Aspiration Hazard : | Not Established | | | |

GHS LABEL: NONE

Signal Word:
NONE

WHMIS CLASSIFICATION: None

| Hazard Statements | Precautionary Statements |
|-------------------|--------------------------------------|
| NONE | P102 : Keep out of reach of children |

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

| | CAS# | EINECS # | REACH Pre-registration Number | CONCENTRATION % by Weight |
|--|-------------|-----------|----------------------------------|------------------------------|
| CALCIUM CARBONATE | 471-34-1 | 207-439-9 | N/A | 40 - 80 |
| DISTILLATES, HYDROTREATED LIGHT NAPHTH | 64742-53-6 | 265-156-6 | N/A | 5 - 10 |
| BENTONITE CLAY | 68953-58-2 | 273-219-4 | N/A | 1 - 5 |
| CANOLA OIL | 129828-25-7 | 204-794-1 | N/A | 1 - 5 |

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

* Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).

indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

- Contact with eyes:** Flush eyes with plenty of water for 15 minutes. Get medical attention if irritation develops or persists.
Skin contact: Wash exposed area with mild soap and water. Get medical attention if irritation develops or persists.
Inhalation: Fresh air should alleviate any respiratory discomfort. If breathing difficulties develop or persist, get medical attention.
Ingestion: Do not induce vomiting. Contact physician immediately.

Likely Routes of Exposure: Skin and Ingestion

Acute symptoms and effects:

- Inhalation:** None Known
Eye Contact: None Known
Skin Contact: None Known
Ingestion: None Known

Chronic (long-term) effects:

SECTION 5 - FIREFIGHTING MEASURES

| | | | | |
|--|---|--------------|------|------------|
| Suitable Extinguishing Media: | Carbon Dioxide Gas, Dry Chemical Powder, Water. | HMIS | NFPA | 0-Minimal |
| Unsuitable Extinguishing Media: | None Known | Health | 0 | 1-Slight |
| Exposure Hazards: | None Known | Flammability | 0 | 2-Moderate |
| Combustion Products: | None Known | Reactivity | 0 | 3-Serious |
| Protection for Firefighters: | Self-contained breathing apparatus or full-face positive pressure airline masks PPE | B | | 4-Severe |

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Extinguish possible sources of ignition and ventilate spill area.
 Provide sufficient ventilation.
Environmental Precautions: Do not flush into sewers or natural waterways.
Methods for Cleaning up: Clean up by scraping and put in a container for disposal.
Materials not to be used for clean up: Not applicable.

SECTION 7 - HANDLING AND STORAGE

- Handling:** Keep containers closed when not in use.
 Do not eat, drink or smoke while handling.
Storage: Follow all precautionary information on container label, product bulletins and literature.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:

This product is not classified as hazardous according to OSHA 1910.1200.

- Engineering Controls:** A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed.
Monitoring: None required.
Personal Protective Equipment (PPE):
Eye Protection: Safety glasses.
Skin Protection: None required.
Respiratory Protection: None required.



GHS SAFETY DATA SHEET

Date Revised: APR 2015

Weld-On® Soft Seal Plumbers Putty

Supersedes: NOV 2014

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|-------------------|-------------------------------|-----------------------------|
| Appearance: | Beige Putty | Odor Threshold: | Not Established |
| Odor: | Mild Petroleum | | |
| pH: | Not Established | Evaporation Rate: | Not Established |
| Melting/Freezing Point: | Not Established | Flammability: | Not Established |
| Boiling Point: | Not Established | Flammability Limits: | LEL: Not Established |
| Flash Point: | Not Established | | UEL: Not Established |
| Specific Gravity: | 2.14 @23°C (73°F) | Vapor Pressure: | Not Established |
| Solubility: | Insoluble | Vapor Density: | Not Established |
| Partition Coefficient n-octanol/water: | Not Established | Other Data: Viscosity: | Not Established |
| Auto-ignition Temperature: | Not Established | | |
| Decomposition Temperature: | Not Established | | |
| VOC Content: | 0 g/L | | |

SECTION 10 - STABILITY AND REACTIVITY

| | |
|--|--|
| Stability: | Stable |
| Hazardous decomposition products: | Carbon Dioxide and Carbon Monoxide may be released on burning. |
| Conditions to avoid: | None Known |
| Incompatible Materials: | Avoid strong oxidizing materials. |

SECTION 11 - TOXICOLOGICAL INFORMATION

| | | | |
|--|-------------|-------------|-------------|
| Toxicity: | LD50 | LC50 | STOT |
| This product is not classified as hazardous according to OSHA 1910.1200. | | | |

| <u>Reproductive Effects</u> | <u>Teratogenicity</u> | <u>Mutagenicity</u> | <u>Embryotoxicity</u> | <u>Sensitization to Product</u> | <u>Synergistic Products</u> |
|-----------------------------|-----------------------|---------------------|-----------------------|---------------------------------|-----------------------------|
| Not Established | Not Established | Not Established | Not Established | Not Established | Not Established |

SECTION 12 - ECOLOGICAL INFORMATION

| | |
|-------------------------|------------|
| Ecotoxicity: | None Known |
| Mobility: | None Known |
| Degradability: | None Known |
| Bioaccumulation: | None Known |

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Dispose of product or container in accordance with federal, state or local regulations.

SECTION 14 - TRANSPORT INFORMATION

| | |
|-------------------------------|---------------|
| Proper Shipping Name: | Not Regulated |
| Hazard Class: | N/A |
| Secondary Risk: | N/A |
| Identification Number: | N/A |
| Packing Group: | N/A |
| Label Required: | N/A |
| Marine Pollutant: | N/A |

SECTION 15 - REGULATORY INFORMATION

| | |
|---|---|
| Precautionary Label Information: | Ingredient Listings: USA TSCA, Europe EINECS, Canada DSL, Australia |
| Symbols: | AICS, Korea ECL/TCCL, Japan MITI (ENCS) |
| Risk Phrases: | None |
| Safety Phrases: | S2-Keep out of reach of children. |

SECTION 16 - OTHER INFORMATION

| | | |
|---|--|---|
| Specification Information: | | |
| Department issuing data sheet: | IPS, Safety Health & Environmental Affairs | All ingredients are compliant with the requirements of the European |
| E-mail address: | <EHSinfo@ipscorp.com> | Directive on RoHS (Restriction of Hazardous Substances). |
| Training necessary: | Yes, training in practices and procedures contained in product literature. | |
| Reissue date / reason for reissue: | 4/24/2015/ Updated GHS Standard Format | |
| Intended Use of Product: | Plumbers Putty | |

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.



GHS SAFETY DATA SHEET

Date Revised: JUN 2018

Weld-On® Soft Seal Plumbers Putty

Supersedes: APR 2015

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Weld-On® Soft Seal Plumbers Putty

PRODUCT USE: Plumbers Putty

SUPPLIER:

MANUFACTURER: IPS Corporation
17109 South Main Street, Gardena, CA 90248-3127
P.O. Box 379, Gardena, CA 90247-0379
Tel. 1-310-898-3300

EMERGENCY: Transportation: CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International) **Medical:** CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

| Health | | Environmental | | Physical |
|---------------------|-----------------|-------------------|-----------------|------------|
| Acute Toxicity: | Not Established | Acute Toxicity: | Not Established | None Known |
| Skin Irritation: | Not Established | Chronic Toxicity: | Not Established | |
| Skin Sensitization: | NO | | | |
| Eye: | Not Established | | | |
| Aspiration Hazard : | Not Established | | | |

GHS LABEL: NONE

Signal Word:
NONE

WHMIS CLASSIFICATION: None

| <u>Hazard Statements</u> | <u>Precautionary Statements</u> |
|--------------------------|--------------------------------------|
| NONE | P102 : Keep out of reach of children |

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

| | CAS# | EINECS # | REACH Pre-registration Number | CONCENTRATION % by Weight |
|--|-------------|-----------|----------------------------------|------------------------------|
| CALCIUM CARBONATE | 471-34-1 | 207-439-9 | N/A | 40 - 80 |
| DISTILLATES, HYDROTREATED LIGHT NAPHTH | 64742-53-6 | 265-156-6 | N/A | 5 - 10 |
| BENTONITE CLAY | 68953-58-2 | 273-219-4 | N/A | 1 - 5 |
| CANOLA OIL | 129828-25-7 | 204-794-1 | N/A | 1 - 5 |

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.
* Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).
indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

- Contact with eyes:** Flush eyes with plenty of water for 15 minutes. Get medical attention if irritation develops or persists.
- Skin contact:** Wash exposed area with mild soap and water. Get medical attention if irritation develops or persists.
- Inhalation:** Fresh air should alleviate any respiratory discomfort. If breathing difficulties develop or persist, get medical attention.
- Ingestion:** Do not induce vomiting. Contact physician immediately.

Likely Routes of Exposure: Skin and Ingestion

Acute symptoms and effects:

- Inhalation:** None Known
- Eye Contact:** None Known
- Skin Contact:** None Known
- Ingestion:** None Known

Chronic (long-term) effects:

SECTION 5 - FIREFIGHTING MEASURES

| | | | | |
|---|--------------|------|------|------------|
| Suitable Extinguishing Media: Carbon Dioxide Gas, Dry Chemical Powder, Water. | | HMIS | NFPA | 0-Minimal |
| Unsuitable Extinguishing Media: None Known | Health | 0 | 0 | 1-Slight |
| Exposure Hazards: None Known | Flammability | 0 | 0 | 2-Moderate |
| Combustion Products: None Known | Reactivity | 0 | 0 | 3-Serious |
| Protection for Firefighters: Self-contained breathing apparatus or full-face positive pressure airline masks PPE | | B | | 4-Severe |

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Extinguish possible sources of ignition and ventilate spill area.
Provide sufficient ventilation.
- Environmental Precautions:** Do not flush into sewers or natural waterways.
- Methods for Cleaning up:** Clean up by scraping and put in a container for disposal.
- Materials not to be used for clean up:** Not applicable.

SECTION 7 - HANDLING AND STORAGE

- Handling:** Keep containers closed when not in use.
Do not eat, drink or smoke while handling.
- Storage:** Follow all precautionary information on container label, product bulletins and literature.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:

This product is not classified as hazardous according to OSHA 1910.1200.

- Engineering Controls:** A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed.
- Monitoring:** None required.
- Personal Protective Equipment (PPE):**
- Eye Protection:** Safety glasses.
- Skin Protection:** None required.
- Respiratory Protection:** None required.



GHS SAFETY DATA SHEET

Date Revised: JUN 2018

Weld-On® Soft Seal Plumbers Putty

Supersedes: APR 2015

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|-------------------|-------------------------------|-----------------------------|
| Appearance: | Beige Putty | Odor Threshold: | Not Established |
| Odor: | Mild Petroleum | | |
| pH: | Not Established | Evaporation Rate: | Not Established |
| Melting/Freezing Point: | Not Established | Flammability: | Not Established |
| Boiling Point: | Not Established | Flammability Limits: | LEL: Not Established |
| Flash Point: | Not Established | | UEL: Not Established |
| Specific Gravity: | 2.14 @23°C (73°F) | Vapor Pressure: | Not Established |
| Solubility: | Insoluble | Vapor Density: | Not Established |
| Partition Coefficient n-octanol/water: | Not Established | Other Data: Viscosity: | Not Established |
| Auto-ignition Temperature: | Not Established | | |
| Decomposition Temperature: | Not Established | | |
| VOC Content: | 0 g/L | | |

SECTION 10 - STABILITY AND REACTIVITY

| | |
|--|--|
| Stability: | Stable |
| Hazardous decomposition products: | Carbon Dioxide and Carbon Monoxide may be released on burning. |
| Conditions to avoid: | None Known |
| Incompatible Materials: | Avoid strong oxidizing materials. |

SECTION 11 - TOXICOLOGICAL INFORMATION

| | | | |
|--|-------------|-------------|-------------|
| Toxicity: | LD50 | LC50 | STOT |
| This product is not classified as hazardous according to OSHA 1910.1200. | | | |

| <u>Reproductive Effects</u> | <u>Teratogenicity</u> | <u>Mutagenicity</u> | <u>Embryotoxicity</u> | <u>Sensitization to Product</u> | <u>Synergistic Products</u> |
|-----------------------------|-----------------------|---------------------|-----------------------|---------------------------------|-----------------------------|
| Not Established | Not Established | Not Established | Not Established | Not Established | Not Established |

SECTION 12 - ECOLOGICAL INFORMATION

| | |
|-------------------------|------------|
| Ecotoxicity: | None Known |
| Mobility: | None Known |
| Degradability: | None Known |
| Bioaccumulation: | None Known |

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Dispose of product or container in accordance with federal, state or local regulations.

SECTION 14 - TRANSPORT INFORMATION

| | |
|-------------------------------|---------------|
| Proper Shipping Name: | Not Regulated |
| Hazard Class: | N/A |
| Secondary Risk: | N/A |
| Identification Number: | N/A |
| Packing Group: | N/A |
| Label Required: | N/A |
| Marine Pollutant: | N/A |

SECTION 15 - REGULATORY INFORMATION

| | |
|---|---|
| Precautionary Label Information: | Ingredient Listings: USA TSCA, Europe EINECS, Canada DSL, Australia |
| Symbols: | None |
| Risk Phrases: | AICS, Korea ECL/TCCL, Japan MITI (ENCS) |
| Safety Phrases: | S2-Keep out of reach of children. |

SECTION 16 - OTHER INFORMATION

| | | |
|---|--|--|
| Specification Information: | | All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances). |
| Department issuing data sheet: | IPS, Safety Health & Environmental Affairs | |
| E-mail address: | <EHSinfo@ipscorp.com> | |
| Training necessary: | Yes, training in practices and procedures contained in product literature. | |
| Reissue date / reason for reissue: | 6/27/2018/ Updated GHS Standard Format | |
| Intended Use of Product: | Plumbers Putty | |

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.



INDUSTRIES 3R

MATERIAL SAFETY DATA SHEET

IDENTITY

Part Number: **TXP428**
 Identity: Welding blanket
 Description: Welding blanket with acrylic coated fiberglass

SUPPLIER

Industries 3R inc.
 55, route 116 Ouest
 Danville (Québec) J0A 1A0
 Tel: 819-839-2793
 Fax: 819-839-2797

COMPOSITION/INFORMATION ON THE COMPONENTS

| COMPONENTS | OSHA PEL | ACGIH TLV | (%) WEIGHT |
|---|----------------------|-----------------------|-------------------|
| Fiberglass welding blanket | 15mg/ m ³ | 10 mg/ m ³ | |
| Acrylic coated fiberglass cloth | | | |
| Continuous fibrous glass (CAS#654997-17-3) | | | 80% |
| Proprietary coating | None established | | 20% |

PHYSICAL AND CHEMICAL PROPERTIES

Boiling point: N/A
 Vapor pressure (mm Hg.): N/A
 Vapor density (AIR = 1): N/A
 Specific gravity (H₂O = 1): 2.55
 Melting point: N/D
 Evaporation rate (Butyl Acetate = 1): N/A
 Solubility: Insoluble
 Odor and appearance: Golden/Yellow rubber coating with no odor

FIRE AND EXPLOSION DATA

Flash point (Method use): N/A
 Flammable limits: N/A
 LEL: N/D
 UEL : N/D
 Extinguishing media: N/A
 Special fire fighting procedures: None
 Unusual Fire and Explosion Hazards: None

STABILITY AND REACTIVITY

Stability: Stable
 Incompatibility (Material to avoid): Oxidizing agents
 Hazardous decomposition or byproducts: CO, CO₂, HCN, Oxides of nitrogen and small amounts of aromatic or aliphatic hydrocarbons can be generated from combustion of this material.
 Hazardous polymerization: Will not occur.

HEALT HAZARD INFORMATION

Route(s) of entry

Inhalation: None

Skin: May cause irritation

Ingestion: Unlikely

Health hazards (acute and chronic): None known

Carcinogenicity: This product is not known as a carcinogen.

Signs and symptoms of exposure: Minor skin irritation

Medical conditions generally aggravated by exposure: None

EMERGENCY AND FIRST AID MEASURES

Skin : wash any material off skin with soap and cool water. If redness, itching or burning sensation develops, get medical attention.

Eyes: flush with water at least 15 minutes. If irritation develops, get medical attention.

Ingestion: Not expected to occur.

SPECIAL PROTECTION

Mechanical (general): None

Respiratory protection: None required

Eye protection: Safety glasses or goggles

Ventilation: local exhaust is not necessary. Use product in well ventilated area

Protection gloves: None required

Other protective clothing or equipment: None required

Work/Hygiene practices: Avoid excessive contact with skin. Wash thoroughly with soap and water after handling of the material

DISPOSAL CONSIDERATIONS

Dispose of any other innocuous material. Discarded product is not hazardous wasted under RCRA 40 CFR 261.

HANDLING AND STORAGE

For maximum comfort, avoid excessive contact with skin and use good hygiene.

Avoid handling at temperature higher than 1100°F.

Local exhaust: dust suppressing cleaning method.

SAFETY DATA SHEET

SC0739000

Section 1. Identification

Product name : WL™739 Silver Galvanizing Compound Aerosol

Product code : SC0739000

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Sprayon Products Group
101 W. Prospect Avenue,
Cleveland, Ohio 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 247-3266
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

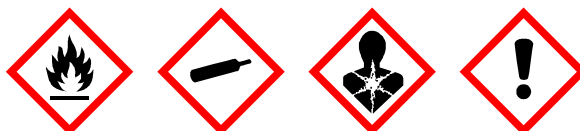
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 24.6% (oral), 25.7% (dermal), 24.6% (inhalation)

GHS label elements

Hazard pictograms :



Date of issue/Date of revision : 10/15/2020 **Date of previous issue** : 5/13/2020

Version : 25

1/22

SC0739000 WL™739 Silver Galvanizing Compound Aerosol

SHW-85-NA-GHS-US

Section 2. Hazards identification

- Signal word** : Danger
- Hazard statements** : Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
- Precautionary statements**
- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
- Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
- Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**

| Ingredient name | % by weight | CAS number |
|-------------------------------------|-------------|------------|
| Acetone | ≥10 - ≤25 | 67-64-1 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≥10 - ≤25 | 106-97-8 |
| Lt. Aliphatic Hydrocarbon Solvent | ≤10 | 64742-89-8 |
| Xylene, mixed isomers | ≤8.3 | 1330-20-7 |
| Aluminum | ≤3 | 7429-90-5 |
| Light Aromatic Hydrocarbons | ≤3 | 64742-95-6 |
| Med. Aliphatic Hydrocarbon Solvent | ≤3 | 64742-88-7 |
| trimethylbenzene | ≤1.6 | 25551-13-7 |
| Light Aliphatic Hydrocarbon Solvent | <1 | 64742-49-0 |

Section 3. Composition/information on ingredients

| | | |
|-------------------------------------|------|------------|
| Light Aliphatic Hydrocarbon Solvent | <1 | 68410-97-9 |
| Ethylbenzene | <1 | 100-41-4 |
| 1,2,4-Trimethylbenzene | <1 | 95-63-6 |
| 1,3,5-Trimethylbenzene | <1 | 108-67-8 |
| Heavy Aromatic Naphtha | ≤0.3 | 64742-94-5 |
| Heptane | ≤0.3 | 142-82-5 |
| Cumene | ≤0.3 | 98-82-8 |
| 1,2,3-Trimethylbenzene | ≤0.3 | 526-73-8 |
| Toluene | ≤0.3 | 108-88-3 |
| Light Aliphatic Hydrocarbon | ≤0.3 | 64742-47-8 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|--|-------------------------|--|
| Acetone | 67-64-1 | ACGIH TLV (United States, 3/2020). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Lt. Aliphatic Hydrocarbon Solvent Xylene, mixed isomers | 64742-89-8 1330-20-7 | None. ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. |
| Aluminum | 7429-90-5 | NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ , (as Al) 8 hours. Form: Respirable fraction |

Section 8. Exposure controls/personal protection

| | | |
|---|---|--|
| <p>Light Aromatic Hydrocarbons Med. Aliphatic Hydrocarbon Solvent</p> | <p>64742-95-6 64742-88-7</p> | <p>TWA: 15 mg/m³, (as Al) 8 hours. Form: Total dust ACGIH TLV (United States, 3/2020). TWA: 1 mg/m³ 8 hours. Form: Respirable fraction None. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.</p> |
| <p>trimethylbenzene</p> | <p>25551-13-7</p> | <p>ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.</p> |
| <p>Light Aliphatic Hydrocarbon Solvent Light Aliphatic Hydrocarbon Solvent Ethylbenzene</p> | <p>64742-49-0 68410-97-9 100-41-4</p> | <p>None. None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| <p>1,2,4-Trimethylbenzene</p> | <p>95-63-6</p> | <p>ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| <p>1,3,5-Trimethylbenzene</p> | <p>108-67-8</p> | <p>ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| <p>Heavy Aromatic Naphtha Heptane</p> | <p>64742-94-5 142-82-5</p> | <p>None. ACGIH TLV (United States, 3/2020). TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 85 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 440 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.</p> |
| <p>Cumene</p> | <p>98-82-8</p> | <p>ACGIH TLV (United States, 3/2020). TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. OSHA PEL (United States, 5/2018).</p> |

Section 8. Exposure controls/personal protection

| | | |
|-----------------------------|------------|---|
| 1,2,3-Trimethylbenzene | 526-73-8 | <p>Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Toluene | 108-88-3 | <p>OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes.</p> <p>ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours.</p> |
| Light Aliphatic Hydrocarbon | 64742-47-8 | <p>ACGIH TLV (United States, 3/2020). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.</p> |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|---------|---|
| acetone | 67-64-1 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p> |
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 1000 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada,</p> |

Section 8. Exposure controls/personal protection

| | | |
|---|------------|--|
| Butane | 106-97-8 | <p>7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 800 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013).</p> |
| Xylene | 1330-20-7 | <p>STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Medium aliphatic solvent naphtha (petroleum) C9-C12 | 64742-88-7 | <p>CA Ontario Provincial (Canada, 6/2019). TWA: 525 mg/m³ 8 hours.</p> |
| Trimethylbenzene | 25551-13-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 123 mg/m³ 8 hours. 8 hrs OEL: 25 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 25 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 25 ppm 8 hours. TWAEV: 123 mg/m³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 25 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 30 ppm 15 minutes.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--------------|----------|--|
| Ethylbenzene | 100-41-4 | <p>TWA: 25 ppm 8 hours. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Cumene | 98-82-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 246 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 50 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 50 ppm 8 hours. TWAEV: 246 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 74 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| Toluene | 108-88-3 | <p>CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). Absorbed through skin. TWAEV: 50 ppm 8 hours. TWAEV: 188 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |

[Occupational exposure limits \(Mexico\)](#)

Section 8. Exposure controls/personal protection

| | CAS # | Exposure limits |
|-----------------------|------------|--|
| Acetone | 67-64-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| trimethylbenzene | 25551-13-7 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 25 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |
| Toluene | 108-88-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Not available.
Odor : Not available.
Odor threshold : Not available.
pH : 7
Melting point/freezing point : Not available.
Boiling point/boiling range : Not available.
Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
Evaporation rate : 5.6 (butyl acetate = 1)
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Lower: 0.7%
Upper: 12.8%
Vapor pressure : 101.3 kPa (760 mm Hg) [at 20°C]
Vapor density : 1.55 [Air = 1]
Relative density : 0.88
Solubility : Not available.
Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
Molecular weight : Not applicable.
Aerosol product
Type of aerosol : Spray
Heat of combustion : 26.067 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.
Chemical stability : The product is stable.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid : Avoid all possible sources of ignition (spark or flame).
Incompatible materials : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------------------|-----------------------|---------|--------------------------|----------|
| Acetone | LD50 Oral | Rat | 5800 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 8400 mg/kg | - |
| trimethylbenzene | LD50 Oral | Rat | 8970 mg/kg | - |
| Light Aliphatic Hydrocarbon Solvent | LD50 Oral | Rat | 5.17 g/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| 1,2,4-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Heptane | LC50 Inhalation Gas. | Rat | 48000 ppm | 4 hours |
| | LC50 Inhalation Vapor | Rat | 103 g/m ³ | 4 hours |
| Cumene | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 1400 mg/kg | - |
| Toluene | LC50 Inhalation Vapor | Rat | 49 g/m ³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-----------------|-------------|
| Acetone | Eyes - Mild irritant | Human | - | 186300 ppm | - |
| | Eyes - Mild irritant | Rabbit | - | 10 UI | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 20 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Skin - Mild irritant | Rabbit | - | 395 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Light Aromatic Hydrocarbons | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 100 UI | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| 1,3,5-Trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Heavy Aromatic Naphtha | Skin - Mild irritant | Rabbit | - | 24 hours 500 UI | - |
| Cumene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |

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| | | | | | |
|--------------------------|--|------------------|--------------|--------------|---|
| Toluene | Eyes - Mild irritant | Rabbit | - | mg | - |
| | Skin - Mild irritant | Rabbit | - | 86 mg | - |
| | | | | 24 hours 10 | - |
| | Skin - Moderate irritant | Rabbit | - | mg | - |
| | | | | 24 hours 100 | - |
| | Eyes - Mild irritant | Rabbit | - | 0.5 minutes | - |
| | | | | 100 mg | - |
| | Eyes - Mild irritant Eyes - Severe irritant | Rabbit Rabbit | - - | 870 ug | - |
| | | | 24 hours 2 | - | |
| Skin - Mild irritant | Pig | - | mg | - | |
| | | | 24 hours 250 | - | |
| Skin - Mild irritant | Rabbit | - | UI | - | |
| Skin - Moderate irritant | Rabbit | - | 435 mg | - | |
| | | | 24 hours 20 | - | |
| Skin - Moderate irritant | Rabbit | - | mg | - | |
| | | | 500 mg | - | |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|--|
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |
| Cumene | - | 2B | Reasonably anticipated to be a human carcinogen. |
| Toluene | - | 3 | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|------------------------------|
| Acetone | Category 3 | - | Respiratory tract irritation |
| Propane | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Butane | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 | - | Respiratory tract |

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| | | | |
|-------------------------------------|--------------------------|---|--|
| Med. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | - | irritation Narcotic effects Respiratory tract irritation |
| Light Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Light Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| 1,2,4-Trimethylbenzene | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| 1,3,5-Trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| Heavy Aromatic Naphtha Heptane | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Cumene | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| 1,2,3-Trimethylbenzene | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |
| Toluene | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-------------------------------------|------------|-------------------|---------------|
| Acetone | Category 2 | - | - |
| Propane | Category 2 | - | - |
| Butane | Category 2 | - | - |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Light Aromatic Hydrocarbons | Category 2 | - | - |
| Med. Aliphatic Hydrocarbon Solvent | Category 1 | - | - |
| Light Aliphatic Hydrocarbon Solvent | Category 2 | - | - |
| Light Aliphatic Hydrocarbon Solvent | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |
| Heptane | Category 2 | - | - |
| Cumene | Category 2 | - | - |
| Toluene | Category 2 | - | - |

Aspiration hazard

| Name | Result |
|-------------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| Med. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |

Section 11. Toxicological information

| | |
|-------------------------------------|--------------------------------|
| Light Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Heavy Aromatic Naphtha | ASPIRATION HAZARD - Category 1 |
| Heptane | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |
| 1,2,3-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Toluene | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
- Inhalation** : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 nausea or vomiting
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Oral | 22849.56 mg/kg |
| Dermal | 15788.04 mg/kg |
| Inhalation (gases) | 97518.39 ppm |
| Inhalation (vapors) | 791.75 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------------|--------------------------------------|---|----------|
| Acetone | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 4.42589 ml/L Marine water | Crustaceans - Acartia tonsa - Copepodid | 48 hours |
| | Acute LC50 7460000 µg/l Fresh water | Daphnia - Daphnia cucullata | 48 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |
| | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| | Chronic NOEC 5 µg/l Marine water | Fish - Gasterosteus aculeatus - Larvae | 42 days |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Aluminum | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 38000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 120 µg/l Fresh water | Fish - Oncorhynchus mykiss - Embryo | 96 hours |
| | Chronic NOEC 9 mg/l Fresh water | Aquatic plants - Ceratophyllum demersum | 3 days |
| trimethylbenzene | Acute LC50 5600 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Ethylbenzene | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella | 96 hours |

Section 12. Ecological information

| | | | |
|-----------------------------|------------------------------------|---|----------|
| 1,2,4-Trimethylbenzene | Acute EC50 6.53 mg/l Marine water | subcapitata Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| 1,3,5-Trimethylbenzene | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pecteniscus - Adult | 48 hours |
| Heptane Cumene | Acute LC50 7720 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 13000 µg/l Marine water | Crustaceans - Cancer magister - Zoea | 48 hours |
| Toluene | Acute LC50 12520 µg/l Fresh water | Fish - Carassius auratus | 96 hours |
| | Chronic NOEC 400 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| Light Aliphatic Hydrocarbon | Acute LC50 375000 µg/l Fresh water | Fish - Oreochromis mossambicus | 96 hours |
| | Acute EC50 2600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| Toluene | Acute EC50 7.4 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 10.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| Toluene | Acute LC50 2700 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 12500 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| Toluene | Acute EC50 11600 µg/l Fresh water | Crustaceans - Gammarus pseudolimnaeus - Adult | 48 hours |
| | Acute EC50 6000 µg/l Fresh water | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| Light Aliphatic Hydrocarbon | Acute LC50 5500 µg/l Fresh water | Fish - Oncorhynchus kisutch - Fry | 96 hours |
| | Chronic NOEC 1000 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| Light Aliphatic Hydrocarbon | Acute LC50 2200 µg/l Fresh water | Fish - Lepomis macrochirus | 4 days |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| Acetone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |
| Ethylbenzene | - | - | Readily |
| Toluene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | high |
| Light Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Light Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| 1,2,4-Trimethylbenzene | - | 243 | low |
| 1,3,5-Trimethylbenzene | - | 161 | low |
| Heavy Aromatic Naphtha | - | 99 to 5780 | high |
| Heptane | - | 552 | high |
| Cumene | - | 35.48 | low |
| 1,2,3-Trimethylbenzene | - | 194.98 | low |

Section 12. Ecological information

| | | | |
|---------|---|----|-----|
| Toluene | - | 90 | low |
|---------|---|----|-----|

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. 126 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. 126 | - ERG No. 126 | - | Emergency schedules F-D, S-U |

Section 14. Transport information

| | | | | | |
|--|---|---|---|---|---|
| | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. | Dependent upon container size, this product may ship under the Limited Quantity shipping exception. |
|--|---|---|---|---|---|

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313
SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations
International lists :

- Australia inventory (AICS)**: Not determined.
- China inventory (IECSC)**: Not determined.
- Japan inventory (ENCS)**: Not determined.
- Japan inventory (ISHL)**: Not determined.
- Korea inventory (KECI)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: Not determined.
- Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
- Thailand inventory**: Not determined.
- Turkey inventory**: Not determined.
- Vietnam inventory**: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Section 16. Other information

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

Date of printing : 10/15/2020

Date of issue/Date of revision : 10/15/2020

Date of previous issue : 5/13/2020

Version : 25

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

▀ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

SC0740000

Section 1. Identification

Product name : WL™740 Zinc-Rich Galvanizing Compound Aerosol

Product code : SC0740000

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Sprayon Products Group
101 W. Prospect Avenue,
Cleveland, Ohio 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 247-3266
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

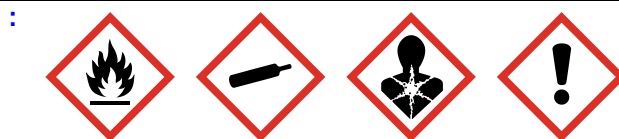
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 69.1%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 69.1%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 69.1%

GHS label elements

Date of issue/Date of revision : 5/13/2020 **Date of previous issue** : 11/27/2019 **Version** : 8 1/19
SC0740000 WL™740 Zinc-Rich Galvanizing Compound Aerosol **SHW-85-NA-GHS-US**

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≥10 - ≤25 | 106-97-8 |
| Lt. Aliphatic Hydrocarbon Solvent | ≥10 - ≤25 | 64742-89-8 |
| Methyl Ethyl Ketone | ≤10 | 78-93-3 |
| n-Butyl Acetate | ≤5 | 123-86-4 |
| Xylene, mixed isomers | <1 | 1330-20-7 |
| 1,2,4-Trimethylbenzene | <1 | 95-63-6 |
| Light Aromatic Hydrocarbons | <1 | 64742-95-6 |
| Light Aliphatic Hydrocarbon | ≤0.3 | 64742-47-8 |
| 1,3,5-Trimethylbenzene | ≤0.3 | 108-67-8 |
| Ethylbenzene | ≤0.3 | 100-41-4 |
| Cumene | ≤0.3 | 98-82-8 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.

Section 4. First aid measures

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|--|-----------------------|--|
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2019). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Lt. Aliphatic Hydrocarbon Solvent Methyl Ethyl Ketone | 64742-89-8 78-93-3 | None. ACGIH TLV (United States, 3/2019). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. |
| n-Butyl Acetate | 123-86-4 | NIOSH REL (United States, 10/2016). TWA: 150 ppm 10 hours. TWA: 710 mg/m ³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. |

Section 8. Exposure controls/personal protection

| | | |
|--|--------------------------|---|
| 1,2,4-Trimethylbenzene | 95-63-6 | <p>STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Light Aromatic Hydrocarbons Light Aliphatic Hydrocarbon | 64742-95-6 64742-47-8 | <p>None. ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.</p> |
| 1,3,5-Trimethylbenzene | 108-67-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Cumene | 98-82-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.</p> |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|---------|---|
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 1000 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2013).</p> |

Section 8. Exposure controls/personal protection

| | | |
|----------------------|----------|--|
| Butane | 106-97-8 | <p>5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 800 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Methyl ethyl ketone | 78-93-3 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 300 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. 8 hrs OEL: 590 mg/m³ 8 hours. 15 min OEL: 885 mg/m³ 15 minutes. CA British Columbia Provincial (Canada, 5/2019). TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. CA Ontario Provincial (Canada, 1/2018). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 150 mg/m³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 300 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 300 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| Normal butyl acetate | 123-86-4 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m³ 15 minutes. 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. STEV: 200 ppm 15 minutes. STEV: 950 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--------------|-----------|--|
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Cumene | 98-82-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 246 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 50 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 246 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 74 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|---------------------|----------|--|
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Methyl Ethyl Ketone | 78-93-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. |
| n-Butyl Acetate | 123-86-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | : Liquid. |
| Color | : Not available. |
| Odor | : Not available. |
| Odor threshold | : Not available. |
| pH | : 7 |
| Melting point/freezing point | : Not available. |
| Boiling point/boiling range | : Not available. |
| Flash point | : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup] |
| Evaporation rate | : 5.6 (butyl acetate = 1) |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Lower: 0.9% Upper: 10% |
| Vapor pressure | : 101.3 kPa (760 mm Hg) [at 20°C] |
| Vapor density | : 1.55 [Air = 1] |
| Relative density | : 1.07 |
| Solubility | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): <0.205 cm ² /s (<20.5 cSt) |
| Molecular weight | : Not applicable. |
| Aerosol product | |
| Type of aerosol | : Spray |
| Heat of combustion | : 21.383 kJ/g |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). |
| Incompatible materials | : No specific data. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|------------------------|---------|--------------------------|----------|
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| | Methyl Ethyl Ketone | Rabbit | 6480 mg/kg | - |
| Methyl Ethyl Ketone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LD50 Oral | Rat | 2737 mg/kg | - |
| n-Butyl Acetate | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10768 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| 1,2,4-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 8400 mg/kg | - |
| | 1,3,5-Trimethylbenzene | Rat | 24000 mg/m ³ | 4 hours |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| Cumene | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 1400 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-----------------|-------------|
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| n-Butyl Acetate | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Light Aromatic Hydrocarbons | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 100 UI | - |
| 1,3,5-Trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| Cumene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 86 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 10 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|--|
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |
| Cumene | - | 2B | Reasonably anticipated to be a human carcinogen. |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|--------------------------|------------------------------------|--|
| Propane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Butane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Methyl Ethyl Ketone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| n-Butyl Acetate | Category 3 | Not applicable. | Narcotic effects |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| 1,2,4-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| 1,3,5-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Cumene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|----------------|
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Methyl Ethyl Ketone | Category 2 | Not determined | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Light Aromatic Hydrocarbons | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |
| Cumene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|-----------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness

Skin contact : Adverse symptoms may include the following:
 irritation
 redness

Ingestion : Adverse symptoms may include the following:
 nausea or vomiting

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|-------|----------------|
| Oral | 14740.53 mg/kg |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|--|--|---------------------------------|
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Methyl Ethyl Ketone | Acute EC50 >500000 µg/l Marine water Acute EC50 5091000 µg/l Fresh water | Algae - Skeletonema costatum Daphnia - Daphnia magna - Larvae | 96 hours 48 hours |
| n-Butyl Acetate | Acute LC50 3220000 µg/l Fresh water Acute LC50 32 mg/l Marine water | Fish - Pimephales promelas Crustaceans - Artemia salina | 96 hours 48 hours |
| Xylene, mixed isomers | Acute LC50 18000 µg/l Fresh water Acute LC50 8500 µg/l Marine water | Fish - Pimephales promelas Crustaceans - Palaemonetes pugio | 96 hours 48 hours |
| 1,2,4-Trimethylbenzene | Acute LC50 13400 µg/l Fresh water Acute LC50 4910 µg/l Marine water | Fish - Pimephales promelas Crustaceans - Elasmopus pecteniscus - Adult | 96 hours 48 hours |
| Light Aliphatic Hydrocarbon 1,3,5-Trimethylbenzene | Acute LC50 7720 µg/l Fresh water Acute LC50 2200 µg/l Fresh water Acute LC50 13000 µg/l Marine water | Fish - Pimephales promelas Fish - Lepomis macrochirus Crustaceans - Cancer magister - Zoea | 96 hours 4 days 48 hours |
| Ethylbenzene | Acute LC50 12520 µg/l Fresh water Chronic NOEC 400 µg/l Fresh water Acute EC50 4600 µg/l Fresh water | Fish - Carassius auratus Daphnia - Daphnia magna Algae - Pseudokirchneriella subcapitata | 96 hours 21 days 72 hours |

Section 12. Ecological information

| | | | |
|----------------------------------|-----------------------------------|---|----------|
| Cumene | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 2600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 7.4 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 10.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| Acute LC50 2700 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours | |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| Methyl Ethyl Ketone | - | - | Readily |
| n-Butyl Acetate | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| 1,2,4-Trimethylbenzene | - | 243 | low |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | high |
| 1,3,5-Trimethylbenzene | - | 161 | low |
| Cumene | - | 35.48 | low |

Mobility in soil







Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS. Marine pollutant (Zinc) |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1   |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | Yes. |
| Additional information | - ERG No. 126 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. 126 | - ERG No. 126 | The environmentally hazardous substance mark may appear if required by other transportation regulations. | The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-D, S-U |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Section 15. Regulatory information

International lists :

- Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (ENCS):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

Date of printing : 5/13/2020

Date of issue/Date of revision : 5/13/2020

Date of previous issue : 11/27/2019

Version : 8

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

SC0740000

Section 1. Identification

Product name : WL™740 Zinc-Rich Galvanizing Compound Aerosol

Product code : SC0740000

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Sprayon Products Group
101 W. Prospect Avenue,
Cleveland, Ohio 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 247-3266
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

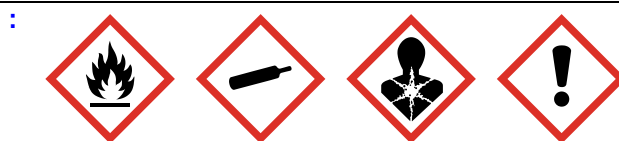
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 69.1%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 69.1%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 69.1%

GHS label elements

Date of issue/Date of revision : 11/27/2019 **Date of previous issue** : 9/1/2019 **Version** : 7
SC0740000 WL™740 Zinc-Rich Galvanizing Compound Aerosol **SHW-85-NA-GHS-US** 1/19

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Date of issue/Date of revision

: 11/27/2019

Date of previous issue

: 9/1/2019

Version : 7

2/19

SC0740000

WL™740 Zinc-Rich Galvanizing Compound Aerosol

SHW-85-NA-GHS-US

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≥10 - ≤25 | 106-97-8 |
| Lt. Aliphatic Hydrocarbon Solvent | ≥10 - ≤25 | 64742-89-8 |
| Methyl Ethyl Ketone | ≤10 | 78-93-3 |
| n-Butyl Acetate | ≤5 | 123-86-4 |
| Xylene, mixed isomers | <1 | 1330-20-7 |
| 1,2,4-Trimethylbenzene | <1 | 95-63-6 |
| Light Aromatic Hydrocarbons | <1 | 64742-95-6 |
| Light Aliphatic Hydrocarbon | ≤0.3 | 64742-47-8 |
| 1,3,5-Trimethylbenzene | ≤0.3 | 108-67-8 |
| Ethylbenzene | ≤0.3 | 100-41-4 |
| Cumene | ≤0.3 | 98-82-8 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.

Section 4. First aid measures

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|--|-----------------------|--|
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2019). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Lt. Aliphatic Hydrocarbon Solvent Methyl Ethyl Ketone | 64742-89-8 78-93-3 | None. ACGIH TLV (United States, 3/2019). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. |
| n-Butyl Acetate | 123-86-4 | NIOSH REL (United States, 10/2016). TWA: 150 ppm 10 hours. TWA: 710 mg/m ³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. |

Section 8. Exposure controls/personal protection

| | | |
|--|--------------------------|---|
| 1,2,4-Trimethylbenzene | 95-63-6 | <p>STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Light Aromatic Hydrocarbons Light Aliphatic Hydrocarbon | 64742-95-6 64742-47-8 | <p>None. ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.</p> |
| 1,3,5-Trimethylbenzene | 108-67-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Cumene | 98-82-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.</p> |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|---------|--|
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 1000 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada,</p> |

Section 8. Exposure controls/personal protection

| | | |
|----------------------|----------|--|
| Butane | 106-97-8 | <p>5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 800 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Methyl ethyl ketone | 78-93-3 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 300 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. 8 hrs OEL: 590 mg/m³ 8 hours. 15 min OEL: 885 mg/m³ 15 minutes. CA British Columbia Provincial (Canada, 5/2019). TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. CA Ontario Provincial (Canada, 1/2018). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 150 mg/m³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 300 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 300 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| Normal butyl acetate | 123-86-4 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m³ 15 minutes. 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. STEV: 200 ppm 15 minutes. STEV: 950 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--------------|-----------|--|
| Xylene | 1330-20-7 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Cumene | 98-82-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 246 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 50 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 246 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 74 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|---------------------|----------|--|
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Methyl Ethyl Ketone | 78-93-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. |
| n-Butyl Acetate | 123-86-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | : Liquid. |
| Color | : Not available. |
| Odor | : Not available. |
| Odor threshold | : Not available. |
| pH | : 7 |
| Melting point/freezing point | : Not available. |
| Boiling point/boiling range | : Not available. |
| Flash point | : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup] |
| Evaporation rate | : 5.6 (butyl acetate = 1) |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Lower: 0.9% Upper: 10% |
| Vapor pressure | : 101.3 kPa (760 mm Hg) [at 20°C] |
| Vapor density | : 1.55 [Air = 1] |
| Relative density | : 1.07 |
| Solubility | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): <0.205 cm ² /s (<20.5 cSt) |
| Molecular weight | : Not applicable. |
| Aerosol product | |
| Type of aerosol | : Spray |
| Heat of combustion | : 21.383 kJ/g |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). |
| Incompatible materials | : No specific data. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|-----------------------|---------|--------------------------|----------|
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| | Methyl Ethyl Ketone | Rabbit | 6480 mg/kg | - |
| n-Butyl Acetate | LD50 Oral | Rat | 2737 mg/kg | - |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| Xylene, mixed isomers | LD50 Oral | Rat | 10768 mg/kg | - |
| | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| 1,2,4-Trimethylbenzene | LD50 Oral | Rat | 4300 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 5 g/kg | - |
| | LD50 Oral | Rat | 8400 mg/kg | - |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| Cumene | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 1400 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-----------------|-------------|
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| n-Butyl Acetate | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| Light Aromatic Hydrocarbons | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| 1,3,5-Trimethylbenzene | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 100 UI | - |
| Ethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Cumene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| Cumene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 86 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 10 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|--|
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |
| Cumene | - | 2B | Reasonably anticipated to be a human carcinogen. |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|--------------------------|------------------------------------|--|
| Propane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Butane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Methyl Ethyl Ketone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| n-Butyl Acetate | Category 3 | Not applicable. | Narcotic effects |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| 1,2,4-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| 1,3,5-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Cumene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|----------------|
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Methyl Ethyl Ketone | Category 2 | Not determined | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Light Aromatic Hydrocarbons | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |
| Cumene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|-----------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
- Inhalation** : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 irritation
 redness
- Ingestion** : Adverse symptoms may include the following:
 nausea or vomiting

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|-------|----------------|
| Oral | 14740.53 mg/kg |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|--|--|---------------------------------|
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Methyl Ethyl Ketone | Acute EC50 >500000 µg/l Marine water Acute EC50 5091000 µg/l Fresh water | Algae - Skeletonema costatum Daphnia - Daphnia magna - Larvae | 96 hours 48 hours |
| n-Butyl Acetate | Acute LC50 3220000 µg/l Fresh water Acute LC50 32 mg/l Marine water | Fish - Pimephales promelas Crustaceans - Artemia salina | 96 hours 48 hours |
| Xylene, mixed isomers | Acute LC50 18000 µg/l Fresh water Acute LC50 8500 µg/l Marine water | Fish - Pimephales promelas Crustaceans - Palaemonetes pugio | 96 hours 48 hours |
| 1,2,4-Trimethylbenzene | Acute LC50 13400 µg/l Fresh water Acute LC50 4910 µg/l Marine water | Fish - Pimephales promelas Crustaceans - Elasmopus pecteniscus - Adult | 96 hours 48 hours |
| Light Aliphatic Hydrocarbon 1,3,5-Trimethylbenzene | Acute LC50 7720 µg/l Fresh water Acute LC50 2200 µg/l Fresh water Acute LC50 13000 µg/l Marine water | Fish - Pimephales promelas Fish - Lepomis macrochirus Crustaceans - Cancer magister - Zoea | 96 hours 4 days 48 hours |
| Ethylbenzene | Acute LC50 12520 µg/l Fresh water Chronic NOEC 400 µg/l Fresh water Acute EC50 4600 µg/l Fresh water | Fish - Carassius auratus Daphnia - Daphnia magna Algae - Pseudokirchneriella subcapitata | 96 hours 21 days 72 hours |

Section 12. Ecological information

| | | | |
|----------------------------------|-----------------------------------|---|----------|
| Cumene | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 2600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 7.4 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 10.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| Acute LC50 2700 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours | |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| Methyl Ethyl Ketone | - | - | Readily |
| n-Butyl Acetate | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| 1,2,4-Trimethylbenzene | - | 243 | low |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | high |
| 1,3,5-Trimethylbenzene | - | 161 | low |
| Cumene | - | 35.48 | low |

Mobility in soil







Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS. Marine pollutant (Zinc) |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1   |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | Yes. |
| Additional information | - ERG No. 126 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. 126 | - ERG No. 126 | The environmentally hazardous substance mark may appear if required by other transportation regulations. | The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-D, S-U |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Section 15. Regulatory information

International lists :

- Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (ENCS):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

Date of printing : 11/27/2019

Date of issue/Date of revision : 11/27/2019

Date of previous issue : 9/1/2019

Version : 7

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

SC0739000

Section 1. Identification

Product name : WL™739 Silver Galvanizing Compound Aerosol
Product code : SC0739000
Other means of identification : Not available.
Product type : Aerosol.
Relevant identified uses of the substance or mixture and uses advised against
Paint or paint related material.

Manufacturer : Sprayon Products Group
101 W. Prospect Avenue,
Cleveland, Ohio 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 247-3266
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

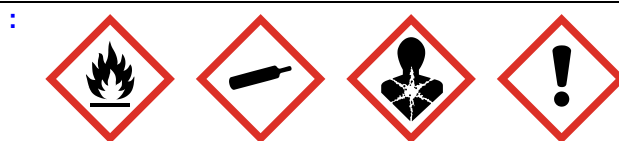
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 45.3%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 45.3%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 45.3%

GHS label elements

Date of issue/Date of revision : 11/27/2019 **Date of previous issue** : 10/28/2019 **Version** : 23 1/22
SC0739000 WL™739 Silver Galvanizing Compound Aerosol **SHW-85-NA-GHS-US**

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.
Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|-------------------------------------|-------------|------------|
| Acetone | ≥10 - ≤25 | 67-64-1 |
| Propane | ≥10 - ≤25 | 74-98-6 |
| Butane | ≥10 - ≤25 | 106-97-8 |
| Lt. Aliphatic Hydrocarbon Solvent | ≤10 | 64742-89-8 |
| Xylene, mixed isomers | ≤7.2 | 1330-20-7 |
| Aluminum | ≤3 | 7429-90-5 |
| 1,2,4-Trimethylbenzene | ≤2.7 | 95-63-6 |
| Med. Aliphatic Hydrocarbon Solvent | ≤3 | 64742-88-7 |
| Light Aromatic Hydrocarbons | ≤3 | 64742-95-6 |
| Light Aliphatic Hydrocarbon Solvent | <1 | 64742-49-0 |
| Light Aliphatic Hydrocarbon Solvent | <1 | 68410-97-9 |
| Ethylbenzene | <1 | 100-41-4 |
| 1,3,5-Trimethylbenzene | <1 | 108-67-8 |
| Cumene | ≤0.3 | 98-82-8 |
| Heavy Aromatic Naphtha | ≤0.3 | 64742-94-5 |
| Heptane | ≤0.3 | 142-82-5 |
| 1,2,3-Trimethylbenzene | ≤0.3 | 526-73-8 |
| Toluene | ≤0.3 | 108-88-3 |
| Light Aliphatic Hydrocarbon | ≤0.3 | 64742-47-8 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

| | | | | | | |
|--------------------------------|--|------------------------|--------------|------------------|------|------|
| Date of issue/Date of revision | : 11/27/2019 | Date of previous issue | : 10/28/2019 | Version | : 23 | 3/22 |
| SC0739000 | WL™739 Silver Galvanizing Compound Aerosol | | | SHW-85-NA-GHS-US | | |

Section 4. First aid measures

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|--|-------------------------|---|
| Acetone | 67-64-1 | ACGIH TLV (United States, 3/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours. |
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2019). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Lt. Aliphatic Hydrocarbon Solvent Xylene, mixed isomers | 64742-89-8 1330-20-7 | None. ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. |

Section 8. Exposure controls/personal protection

| | | |
|---|--|---|
| Aluminum | 7429-90-5 | <p>TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m³, (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m³, (as Al) 8 hours. Form: Total dust ACGIH TLV (United States, 3/2019). TWA: 1 mg/m³ 8 hours. Form: Respirable fraction</p> |
| 1,2,4-Trimethylbenzene | 95-63-6 | <p>ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Med. Aliphatic Hydrocarbon Solvent | 64742-88-7 | <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.</p> |
| Light Aromatic Hydrocarbons Light Aliphatic Hydrocarbon Solvent Light Aliphatic Hydrocarbon Solvent Ethylbenzene | 64742-95-6 64742-49-0 68410-97-9 100-41-4 | <p>None. None. None. ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| 1,3,5-Trimethylbenzene | 108-67-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Cumene | 98-82-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.</p> |
| Heavy Aromatic Naphtha | 64742-94-5 | <p>None.</p> |

Section 8. Exposure controls/personal protection

| | | |
|-----------------------------|------------|--|
| Heptane | 142-82-5 | <p>ACGIH TLV (United States, 3/2019). TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes.</p> <p>NIOSH REL (United States, 10/2016). TWA: 85 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 440 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.</p> |
| 1,2,3-Trimethylbenzene | 526-73-8 | <p>ACGIH TLV (United States, 3/2019). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Toluene | 108-88-3 | <p>OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes.</p> <p>ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours.</p> |
| Light Aliphatic Hydrocarbon | 64742-47-8 | <p>ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.</p> |

Occupational exposure limits (Canada)

| Ingredient name | CAS # | Exposure limits |
|-----------------|---------|--|
| Acetone | 67-64-1 | <p>CA Alberta Provincial (Canada, 6/2018). ▶ 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWA_{EV}: 500 ppm 8 hours. TWA_{EV}: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013).</p> |

Section 8. Exposure controls/personal protection

| | | |
|------------------------|-----------|--|
| Normal propane | 74-98-6 | <p>STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 1000 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> |
| Butane | 106-97-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 800 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). Explosive potential.</p> |
| Xylene | 1330-20-7 | <p>STEL: 1000 ppm 15 minutes.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| 1,2,4-Trimethylbenzene | 95-63-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 123 mg/m³ 8 hours. 8 hrs OEL: 25 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 25 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--|--|---|
| | | TWAEV: 50 ppm 8 hours. TWAEV: 188 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours. |
|--|--|---|

Occupational exposure limits (Mexico)

| | CAS # | Exposure limits |
|------------------------|--------------|--|
| Acetone | 67-64-1 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes. |
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | NOM-010-STPS-2014 (Mexico, 4/2016). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. |
| 1,2,4-Trimethylbenzene | 95-63-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 25 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |
| Toluene | 108-88-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%
Upper: 12.8%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.88
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 25.984 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------------------|-----------------------|---------|--------------------------|----------|
| Acetone | LD50 Oral | Rat | 5800 mg/kg | - |
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| 1,2,4-Trimethylbenzene | LD50 Oral | Rat | 4300 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 5 g/kg | - |
| | LD50 Oral | Rat | 8400 mg/kg | - |
| Light Aliphatic Hydrocarbon Solvent | LD50 Oral | Rat | 5.17 g/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Cumene | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 1400 mg/kg | - |
| Heptane | LC50 Inhalation Gas. | Rat | 48000 ppm | 4 hours |
| | LC50 Inhalation Vapor | Rat | 103 g/m ³ | 4 hours |
| Toluene | LC50 Inhalation Vapor | Rat | 49 g/m ³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-----------------|-------------|
| Acetone | Eyes - Mild irritant | Human | - | 186300 ppm | - |
| | Eyes - Mild irritant | Rabbit | - | 10 UI | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 20 mg | - |
| Xylene, mixed isomers | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 395 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Light Aromatic Hydrocarbons | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 100 UI | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| 1,3,5-Trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |

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13/22

SC0739000

WL™ 739 Silver Galvanizing Compound Aerosol

SHW-85-NA-GHS-US

Section 11. Toxicological information

| | | | | | |
|------------------------|--------------------------|--------|---|--------------------|---|
| Cumene | Skin - Moderate irritant | Rabbit | - | mg 24 hours 20 | - |
| | Eyes - Mild irritant | Rabbit | - | mg 24 hours 500 | - |
| Heavy Aromatic Naphtha | Eyes - Mild irritant | Rabbit | - | mg 86 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 10 | - |
| Toluene | Skin - Moderate irritant | Rabbit | - | mg 24 hours 100 | - |
| | Skin - Mild irritant | Rabbit | - | mg 24 hours 500 | - |
| Toluene | Eyes - Mild irritant | Rabbit | - | UI 0.5 minutes | - |
| | Eyes - Mild irritant | Rabbit | - | 100 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 870 ug | - |
| | Skin - Mild irritant | Pig | - | 24 hours 2 | - |
| | Skin - Mild irritant | Rabbit | - | mg 24 hours 250 | - |
| | Skin - Moderate irritant | Rabbit | - | UI 435 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 | - |
| | Skin - Moderate irritant | Rabbit | - | mg 500 mg | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|--|
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |
| Cumene | - | 2B | Reasonably anticipated to be a human carcinogen. |
| Toluene | - | 3 | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---------|--------------------------|------------------------------------|--|
| Acetone | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Propane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Butane | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Section 11. Toxicological information

| | | | |
|-------------------------------------|--|---|--|
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Xylene, mixed isomers | Category 3 | Not applicable. | Respiratory tract irritation |
| 1,2,4-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Med. Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Light Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Light Aliphatic Hydrocarbon Solvent | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Ethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| 1,3,5-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Cumene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| Heavy Aromatic Naphtha Heptane | Category 3 Category 3 Category 3 | Not applicable. Not applicable. Not applicable. | Narcotic effects Narcotic effects Respiratory tract irritation |
| 1,2,3-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Toluene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-------------------------------------|------------|-------------------|----------------|
| Acetone | Category 2 | Not determined | Not determined |
| Propane | Category 2 | Not determined | Not determined |
| Butane | Category 2 | Not determined | Not determined |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Xylene, mixed isomers | Category 2 | Not determined | Not determined |
| Med. Aliphatic Hydrocarbon Solvent | Category 1 | Not determined | Not determined |
| Light Aromatic Hydrocarbons | Category 2 | Not determined | Not determined |
| Light Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Light Aliphatic Hydrocarbon Solvent | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |
| Cumene | Category 2 | Not determined | Not determined |
| Heptane | Category 2 | Not determined | Not determined |
| Toluene | Category 2 | Not determined | Not determined |

Aspiration hazard

Section 11. Toxicological information

| Name | Result |
|-------------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Med. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |
| Heavy Aromatic Naphtha | ASPIRATION HAZARD - Category 1 |
| Heptane | ASPIRATION HAZARD - Category 1 |
| 1,2,3-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Toluene | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Skin contact : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Ingestion : Adverse symptoms may include the following:
 nausea or vomiting
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Oral | 45508.86 mg/kg |
| Dermal | 11641.8 mg/kg |
| Inhalation (gases) | 52917.28 ppm |
| Inhalation (vapors) | 500.48 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------------|-------------------------------------|-------------------------------------|----------|
| Acetone | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 6000000 µg/l Fresh water | Crustaceans - Gammarus pulex | 48 hours |
| | Acute LC50 6900 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |
| | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| Lt. Aliphatic Hydrocarbon Solvent | Chronic NOEC 0.1 mg/l Fresh water | Fish - Fundulus heteroclitus | 4 weeks |
| | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Aluminum | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 38000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 120 µg/l Fresh water | Fish - Oncorhynchus mykiss - Embryo | 96 hours |

Section 12. Ecological information

| | | | |
|-----------------------------|------------------------------------|---|----------|
| 1,2,4-Trimethylbenzene | Chronic NOEC 9 mg/l Fresh water | Aquatic plants - Ceratophyllum demersum | 3 days |
| | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pecteniscrus - Adult | 48 hours |
| Ethylbenzene | Acute LC50 7720 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| 1,3,5-Trimethylbenzene | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 13000 µg/l Marine water | Crustaceans - Cancer magister - Zoea | 48 hours |
| Cumene | Acute LC50 12520 µg/l Fresh water | Fish - Carassius auratus | 96 hours |
| | Chronic NOEC 400 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Acute EC50 2600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 7.4 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 10.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| Heptane | Acute LC50 2700 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Toluene | Acute LC50 375000 µg/l Fresh water | Fish - Oreochromis mossambicus | 96 hours |
| | Acute EC50 12500 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 11600 µg/l Fresh water | Crustaceans - Gammarus pseudolimnaeus - Adult | 48 hours |
| | Acute EC50 6000 µg/l Fresh water | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| Light Aliphatic Hydrocarbon | Acute LC50 5500 µg/l Fresh water | Fish - Oncorhynchus kisutch - Fry | 96 hours |
| | Chronic NOEC 1000 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Acute LC50 2200 µg/l Fresh water | Fish - Lepomis macrochirus | 4 days |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| Acetone | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |
| Ethylbenzene | - | - | Readily |
| Toluene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| 1,2,4-Trimethylbenzene | - | 243 | low |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | high |
| Light Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Light Aliphatic Hydrocarbon | - | 10 to 2500 | high |

Section 12. Ecological information

| | | | |
|------------------------|---|------------|------|
| Solvent | - | 161 | low |
| 1,3,5-Trimethylbenzene | - | 35.48 | low |
| Cumene | - | 99 to 5780 | high |
| Heavy Aromatic Naphtha | - | 552 | high |
| Heptane | - | 194.98 | low |
| 1,2,3-Trimethylbenzene | - | 90 | low |
| Toluene | - | | |

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|---|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | - ERG No. | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. | - ERG No. | - | Emergency schedules F-D, S-U |

Section 14. Transport information

| | | | |
|-----|-----|-----|--|
| 126 | 126 | 126 | |
|-----|-----|-----|--|

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists :

- Australia inventory (AICS)**: Not determined.
- China inventory (IECSC)**: Not determined.
- Japan inventory (ENCS)**: Not determined.
- Japan inventory (ISHL)**: Not determined.
- Korea inventory (KECI)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: Not determined.
- Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
- Thailand inventory**: Not determined.
- Turkey inventory**: Not determined.
- Vietnam inventory**: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Section 16. Other information

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION (Fertility) - Category 2 | Calculation method |
| TOXIC TO REPRODUCTION (Unborn child) - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

Date of printing : 11/27/2019

Date of issue/Date of revision : 11/27/2019

Date of previous issue : 10/28/2019

Version : 23

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

▀ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

SC0740000

Section 1. Identification

Product name : WL™740 Zinc-Rich Galvanizing Compound Aerosol

Product code : SC0740000

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Sprayon Products Group
101 W. Prospect Avenue,
Cleveland, Ohio 44115

National contact : Sprayon Products
180 Brunel Road
Mississauga, Ontario L4Z 1T5 Canada


Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Product Information Telephone Number : US / Canada: (800) 247-3266
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

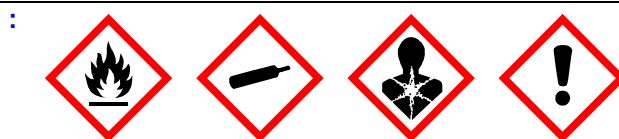
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 25.6% (oral), 69.1% (dermal), 69.1% (inhalation) 

GHS label elements

Date of issue/Date of revision : 4/27/2021 **Date of previous issue** : 4/13/2021 **Version** : 11.01 1/19
SC0740000 WL™740 Zinc-Rich Galvanizing Compound Aerosol **SHW-85-NA-GHS-CA**

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|-----------------------------------|-------------|------------|
| Propane | 14.47 | 74-98-6 |
| Butane | 13.9 | 106-97-8 |
| Lt. Aliphatic Hydrocarbon Solvent | 11.14 | 64742-89-8 |
| Methyl Ethyl Ketone | 5.73 | 78-93-3 |
| n-Butyl Acetate | 4.96 | 123-86-4 |
| Xylene, mixed isomers | 0.77 | 1330-20-7 |
| Light Aromatic Hydrocarbons | 0.71 | 64742-95-6 |
| trimethylbenzene | 0.37 | 25551-13-7 |
| Light Aliphatic Hydrocarbon | 0.19 | 64742-47-8 |
| 1,3,5-Trimethylbenzene | 0.16 | 108-67-8 |
| 1,2,4-Trimethylbenzene | 0.16 | 95-63-6 |
| Ethylbenzene | 0.14 | 100-41-4 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 4. First aid measures

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 - carbon dioxide
 - carbon monoxide
 - metal oxide/oxides

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|--|-----------------------|--|
| Propane | 74-98-6 | NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. |
| Butane | 106-97-8 | NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes. |
| Lt. Aliphatic Hydrocarbon Solvent Methyl Ethyl Ketone | 64742-89-8 78-93-3 | None. ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m ³ 8 hours. |
| n-Butyl Acetate | 123-86-4 | NIOSH REL (United States, 10/2016). |

Section 8. Exposure controls/personal protection

| | | |
|---|--------------------------|--|
| Xylene, mixed isomers | 1330-20-7 | <p>TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Light Aromatic Hydrocarbons trimethylbenzene | 64742-95-6 25551-13-7 | <p>None. ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.</p> |
| Light Aliphatic Hydrocarbon | 64742-47-8 | <p>ACGIH TLV (United States, 3/2020). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.</p> |
| 1,3,5-Trimethylbenzene | 108-67-8 | <p>ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| 1,2,4-Trimethylbenzene | 95-63-6 | <p>ACGIH TLV (United States, 3/2020). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |

[Occupational exposure limits \(Canada\)](#)

Section 8. Exposure controls/personal protection

| Ingredient name | CAS # | Exposure limits |
|---------------------|----------|--|
| Normal propane | 74-98-6 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> <p>CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p> |
| Butane | 106-97-8 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p> |
| Methyl ethyl ketone | 78-93-3 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 300 ppm 15 minutes. 8 hrs OEL: 200 ppm 8 hours. 8 hrs OEL: 590 mg/m³ 8 hours. 15 min OEL: 885 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 1/2020). TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 7/2019). TWAEV: 50 ppm 8 hours. TWAEV: 150 mg/m³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 300 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 300 ppm 15 minutes. TWA: 200 ppm 8 hours.</p> |
| n-butyl acetate | 123-86-4 | <p>CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m³ 15 minutes.</p> |

Section 8. Exposure controls/personal protection

| | | |
|--------------|-----------|---|
| Xylene | 1330-20-7 | <p>8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. STEV: 200 ppm 15 minutes. STEV: 950 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. CA Ontario Provincial (Canada, 6/2019). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |
| Ethylbenzene | 100-41-4 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> |

Section 8. Exposure controls/personal protection

Occupational exposure limits (Mexico)

| Ingredient name | CAS # | Exposure limits |
|---------------------|----------|--|
| Propane | 74-98-6 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Butane | 106-97-8 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 1000 ppm 8 hours. |
| Methyl Ethyl Ketone | 78-93-3 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes. |
| n-Butyl Acetate | 123-86-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. |
| Ethylbenzene | 100-41-4 | NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%
Upper: 10%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 1.07
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 21.484 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|-----------------------|---------|--------------------------|----------|
| Butane | LC50 Inhalation Vapor | Rat | 658000 mg/m ³ | 4 hours |
| Methyl Ethyl Ketone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| | LD50 Oral | Rat | 2737 mg/kg | - |
| n-Butyl Acetate | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10768 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 8400 mg/kg | - |
| trimethylbenzene | LD50 Oral | Rat | 8970 mg/kg | - |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| 1,2,4-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-----------------|-------------|
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| n-Butyl Acetate | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 uL | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Light Aromatic Hydrocarbons | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 100 uL | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| 1,3,5-Trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Sensitization

Not available.

Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Xylene, mixed isomers | - | 3 | - |
| Ethylbenzene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|------------------------------|
| Propane | Category 3 | - | Respiratory tract irritation |
| Butane | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| Methyl Ethyl Ketone | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |
| n-Butyl Acetate | Category 3 | - | Narcotic effects |
| Xylene, mixed isomers | Category 3 | - | Respiratory tract irritation |
| Light Aromatic Hydrocarbons | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| 1,3,5-Trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| 1,2,4-Trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| Ethylbenzene | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------------------|------------|-------------------|---------------|
| Propane | Category 2 | - | - |
| Butane | Category 2 | - | - |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | - | - |
| Methyl Ethyl Ketone | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Light Aromatic Hydrocarbons | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |

Aspiration hazard

Section 11. Toxicological information

| Name | Result |
|-----------------------------------|--------------------------------|
| Propane | ASPIRATION HAZARD - Category 1 |
| Butane | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Section 11. Toxicological information

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|-------|----------------|
| Oral | 35511.85 mg/kg |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|---|---|---------------------------------|
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Methyl Ethyl Ketone | Acute EC50 >500000 µg/l Marine water Acute EC50 5091000 µg/l Fresh water | Algae - Skeletonema costatum Daphnia - Daphnia magna - Larvae | 96 hours 48 hours |
| n-Butyl Acetate | Acute LC50 3220000 µg/l Fresh water Acute LC50 32 mg/l Marine water | Fish - Pimephales promelas Crustaceans - Artemia salina | 96 hours 48 hours |
| Xylene, mixed isomers | Acute LC50 18000 µg/l Fresh water Acute LC50 8500 µg/l Marine water | Fish - Pimephales promelas Crustaceans - Palaemonetes pugio | 96 hours 48 hours |
| trimethylbenzene | Acute LC50 13400 µg/l Fresh water Acute LC50 5600 µg/l Marine water | Fish - Pimephales promelas Crustaceans - Palaemonetes pugio | 96 hours 48 hours |
| Light Aliphatic Hydrocarbon 1,3,5-Trimethylbenzene | Acute LC50 2200 µg/l Fresh water Acute LC50 13000 µg/l Marine water | Fish - Lepomis macrochirus Crustaceans - Cancer magister - Zoea | 4 days 48 hours |
| 1,2,4-Trimethylbenzene | Acute LC50 12520 µg/l Fresh water Chronic NOEC 400 µg/l Fresh water Acute LC50 4910 µg/l Marine water | Fish - Carassius auratus Daphnia - Daphnia magna Crustaceans - Elasmopus pecteniscrus - Adult | 96 hours 21 days 48 hours |
| Ethylbenzene | Acute LC50 7720 µg/l Fresh water Acute EC50 4600 µg/l Fresh water | Fish - Pimephales promelas Algae - Pseudokirchneriella subcapitata | 96 hours 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| | | | |
|---|---|-------------------------|-------|
| Date of issue/Date of revision : 4/27/2021 | Date of previous issue : 4/13/2021 | Version : 11.01 | 15/19 |
| SC0740000 | WL™740 Zinc-Rich Galvanizing Compound Aerosol | SHW-85-NA-GHS-CA | |

Section 12. Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| Methyl Ethyl Ketone | - | - | Readily |
| n-Butyl Acetate | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |
| Ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------------|--------------------|-------------|-----------|
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | high |
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | high |
| 1,3,5-Trimethylbenzene | - | 161 | low |
| 1,2,4-Trimethylbenzene | - | 243 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.






Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | AEROSOLS, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  |

Section 14. Transport information

| | | | | | |
|-------------------------------|---|---|---|---|---|
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | <p>-</p> <p>ERG No. 126</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p> | <p>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).</p> <p>ERG No. 126</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p> | <p>-</p> <p>ERG No. 126</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p> | <p>-</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p> | <p>Emergency schedules F-D, S-U</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p> |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.

International regulations

- International lists** :
- Australia inventory (AIIIC):** Not determined.
 - China inventory (IECSC):** Not determined.
 - Japan inventory (CSCL):** Not determined.
 - Japan inventory (ISHL):** Not determined.
 - Korea inventory (KECI):** Not determined.
 - New Zealand Inventory of Chemicals (NZIoC):** Not determined.
 - Philippines inventory (PICCS):** Not determined.
 - Taiwan Chemical Substances Inventory (TCSI):** Not determined.
 - Thailand inventory:** Not determined.
 - Turkey inventory:** Not determined.
 - Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 4 |
| Physical hazards | | 3 |
| | | |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE AEROSOLS - Category 1 | On basis of test data |
| GASES UNDER PRESSURE - Compressed gas | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

History

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Version : 11.01

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.