

# Safety Data Sheets

All

All

Cleveland -Cliffs (formerly Arcelor)

01/11/2022

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|                           |                          |
|---------------------------|--------------------------|
| <b>IRWIN Chalk – Blue</b> | <b>December 23, 2016</b> |
|                           | <b>Revision 2</b>        |

### 1. PRODUCT and COMPANY IDENTIFICATION

Commercial Product Name: IRWIN Chalk – Blue  
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). 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 <sup>1</sup>           | 80-85     | 471-34-1   | 207-439-9 |
| Ultramarine blue                         | 15-20     | 57455-37-5 | none      |
| Silica (crystalline quartz) <sup>1</sup> | 0.1 - 1   | 14808-60-7 | 238-878-4 |

<sup>1</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

# SAFETY DATA SHEET

IRWIN Chalk – Blue

## 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:** Wash mouth out with plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical aid.

**Additional advice:** Show this safety data sheet to the doctor in attendance

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Substance is noncombustible.

**Explosion:** No information found.

**Specific hazards:** Not considered to be a significant fire risk, however; the containers may burn, releasing carbon monoxide, and carbon dioxide.

**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 – Blue

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

| Component                                     | CAS No.                  | % by weight | Exposure Limit 8-Hour TWA <sup>1</sup> (mg/m <sup>3</sup> ) |                    |                                |
|---|--------------------------|-------------|---|--------------------|--------------------------------|
|   |                          |             | OSHA PEL  | ACGIH TLV          | NIOSH REL                      |
| Calcium Carbonate <sup>4</sup><br>(Limestone) | 471-34-1;<br>(1317-65-3) | 80-85       | 15 <sup>2</sup> 5 <sup>3</sup>                              | 10 <sup>2</sup>    | 10 <sup>2</sup> 5 <sup>3</sup> |
| Ultramarine blue                              | 57455-37-5               | 15-20       | Not Est.  | Not Est.           | Not Est.                       |
| Silica-Crystalline<br>Quartz <sup>4</sup>     | 14808-60-7               | 0.1-1.0     | 0.05 <sup>3</sup>   | 0.025 <sup>3</sup> | 0.05 <sup>3</sup>              |

<sup>1</sup> TWA = Time-weighted average

<sup>2</sup> Total dust.

<sup>3</sup> Respirable dust.

<sup>4</sup> 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:                                   | Blue               |
| Odor:                                    | Odorless.          |
| pH (at 10% solids):                      | 8.5-9.5            |
| Boiling point/range:                     | No data available. |
| Melting point/range:                     | Decomposes         |
| 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 <sub>2</sub> O=1):   | 2.60-2.65          |
| Viscosity:                               | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |

# SAFETY DATA SHEET

IRWIN Chalk – Blue

## 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

**Conditions to avoid:** Incompatible materials, moisture.

**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<sub>Lo</sub>: 300 µg/m<sup>3</sup>/ 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: LD<sub>50</sub>: 6,450 mg/kg.  
(Ultramarine blue) Rat: LD<sub>50</sub>: 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.

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 – Blue

## 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 – Blue

**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

# Safety Data Sheet

## #2 Utility Grade Sweeping Compound

### Section 1

**Product Name:** #2 Utility Grade Sweeping Compound

**MSDS Date:** 05/22/20

**NSN:** 7930-00-132-5265

**Dist:** Uline Shipping Supplies

12575 Uline Drive

Pleasant Prairie, WI 53158

**Product Info/Emergency Telephone:** 800- 295-5510

#### Product Identification:

**Chemical Name:** N/A

#### **Formulation Components:**

- 1) Hydrotreated Heavy Naphthenic Distillate – Petroleum Hydrocarbons CAS # 64742-52-5
- 2) Hardwood Sawdust CAS # N/A
- 3) Silicon/Dioxide S102 CAS #14808-60-7

Sweeping compound is used in cleaning floors. It is spread on floors then swept up.  
Utility grade #2 sweeping compound is used on unfinished concrete and wood floors.

### Section 2

#### Health Hazard Data:

Classification: This material is considered hazardous by the OSHA hazard Communication Standard (29 CFR 1910.1200)



|   | Category |
|---|----------|
| Accute toxicity – oral                              | 4        |
| Skin irritation                                     | 2        |
| Serious eye damage/irritation                       | 2B       |
| Carcinogenicity                                     | 1A       |
| Specific target organ toxicity<br>(Single exposure) | 3        |

Signal Word                      DANGER

#2 Utility Grade Sweeping Compound

## Hazard statements

H303- May be harmful if swallowed  
H315- May cause skin irritation  
H320- May cause eye irritation  
H335- May cause respiratory irritation  
H350- May cause cancer

Skin irritation can be avoided by wearing gloves when using sweeping compound.  
Eye irritation can be avoided by wearing safety glasses when using sweeping compound.  
Keep product away from your face when using.  
If contacted with skin wash thoroughly with soap and water.  
Do not eat, drink or smoke while using this product.

## Section 3

**Chemical Name:** N/A

**Formulation Components:**

Hydrotreated Heavy Naphthenic Distillate – Petroleum Hydrocarbons CAS # 64742-52-5  
Hardwood Sawdust CAS # N/A  
Silicon/Dioxide S102 CAS #14808-60-7

The percentage of composition of these components is a trade secret.

## Section 4

**Routes of Exposure and Signs and Symptoms of Exposure:**

**Inhalation:** Irritation of the respiratory system, cough, shortness of breath, wheezing

**Eye Contact:** Swelling, discomfort associated with foreign substance within the eye

**Ingestion:** Mild discomfort, vomiting

**Emergency and First Aid Procedures:**

**Inhalation:** If inhalation occurs, remove personnel from contaminated area to fresh air

**Eye Contact:** Flush with water, refer to physician

**Skin Contact:** Wash thoroughly with soap and water

**Ingestion:** Induce vomiting and consult with a physician

## Section 5

**Fire and Explosion Data:**

**Flash Point and Method:** 345° F COC Auto ignition T

**Flammable Limits:** Upper-N/A, Lower-N/A

**Extinguishing Media:** Water, Foam, CO<sub>2</sub>

**Special Fire Fighting Procedures:** NIOSH/MSHA self-contained breathing apparatus should be provided for confined areas. Do not enter any enclosed or confined fire space without proper protective equipment.



## Section 6

### **Spill/Leak Procedures:**

Sweep into proper receptacle  
Avoid airborne dust  
Wear personal protective equipment  
Dispose in accordance with local, state, and federal regulations

## Section 7

### **Handling and Storage:**

Store material in a dry area with containers tightly closed  
Avoid physical damage to containers and avoid creating airborne dust  
Do not store product with food and/or tobacco products

## Section 8

### **Protective Equipment:**

None required  
Safety glasses – are recommended  
Protective Gloves for handling material are recommended  
Dust Respirator – Optional

### **Occupational Exposure Limits:**

Sawdust – OSHA recommends standard maximum permissible concentration 5.0 mg/M3 at an 8-hour time weighted average  
Oil – OSHA recommends standard maximum permissible concentration 5.0 mg/M3 at an 8-hour time weighted average  
Sand – NIOSH recommends standard maximum permissible concentration of 0.05 mg/M3 as determined by a full shift sample up to 10 hour working day, 40-hour work week

## Section 9

### **Physical Data:**

**Boiling Point:** N/A  
**Freezing Point:** N/A  
**Specific Gravity:** 1.5  
**Melting Point:** 844° C  
**Solubility in Water:** N/A  
**Reactivity in Water:** N/A  
**Appearance and Odor:** Sawdust-Sand-Mixture, Slight lubricant and lemon odor  
**VOC Content** < .001%

## Section 10

### **Reactivity Data:**

**Stability of Product under Normal Conditions:** Stable  
**Incompatibilities:** Strong acids, Alkalies, and Oxidizers  
**Hazardous Decomposition Products:** Burning or excessive heating may produce Carbon Monoxide and other harmful substances  
**Hazardous Polymerization:** Not subject to polymerization

**HMIS Rating:**

Health – 1

Fire – 0

Reactivity – 0

**Section 11**

**Likely routes of exposure and immediate effects:**

**Inhalation:** Irritation of the respiratory system, cough, shortness of breath, wheezing

**Eye Contact:** Swelling, discomfort associated with foreign substance within the eye

**Ingestion:** Mild discomfort, vomiting

**Numerical measures of toxicity:** N/A

**Symptoms:**

**Inhalation:** Cough, shortness of breath, wheezing

**Eye Contact:** Swelling, tearing, discomfort associated with foreign substance within the eye

**Ingestion:** Vomiting

**Section 12**

**Ecological Information:** No data is available.

**Section 13**

**Waste Disposal Method:** Product and Packaging waste do not dump in sewers or into any body of water. Please follow all local regulations regarding disposal.

**Section 14**

**Transport Information:** Not classified as hazardous for transportation.

**Section 15**

**Regulatory Information:**

**California Prop 65**

Hydrotreated Heavy Naphthenic Distillate – Petroleum Hydrocarbons CAS # 64742-52-5

Hardwood Sawdust CAS # N/A

Silicon/Dioxide S102 CAS #14808-60-7

**Section 16**

**Other Information:**

**Disclaimer:** This information is based on the data presently available and to the best of our knowledge is accurate. But, we make no warranty, expressed or implied, regarding the accuracy of this data or the results obtained from its use; and, any use of the material itself or in combination with any other material or any process is the sole responsibility of the user. This SDS is dated 5/22/2020.

# Safety Data Sheet

## #2 Utility Grade Sweeping Compound

### Section 1

**Product Name:** #2 Utility Grade Sweeping Compound

**MSDS Date:** Update 4/1/15, revised 7/31/15

**Distributor:** Uline Shipping Supplies

12575 Uline Drive

Pleasant Prairie, WI 53158

Phone: 1-800-295-5510

**Emergency Telephone: Chemtrec-** 1-800-424-9300

#### **Product Identification:**

**Chemical Name:** N/A

**Formulation Components:**

- 1) Hydrotreated Heavy Naphthenic Distillate – Petroleum Hydrocarbons
- 2) Hardwood Sawdust
- 3) Silicon/Dioxide S102

Sweeping compound is used in cleaning floors. It is spread on floors then swept up. Utility grade #2 sweeping compound is used on unfinished concrete and wood floors.

### Section 2

#### **Health Hazard Data:**

None



Skin irritation can be avoided by wearing gloves when using sweeping compound. If contacted with skin wash thoroughly with soap and water.

### Section 3

**Chemical Name:** N/A

**Formulation Components:**

- Hydrotreated Heavy Naphthenic Distillate – Petroleum Hydrocarbons
- Hardwood Sawdust
- Silicon/Dioxide S102

The percentage of composition of these components is a trade secret.

## Section 4

### **Routes of Exposure and Signs and Symptoms of Exposure:**

**Inhalation:** Irritation of the respiratory system, cough, shortness of breath, wheezing

**Eye Contact:** Swelling, discomfort associated with foreign substance within the eye

**Ingestion:** Mild discomfort, vomiting

### **Emergency and First Aid Procedures:**

**Inhalation:** If inhalation occurs, remove personnel from contaminated area to fresh air

**Eye Contact:** Flush with water, refer to physician

**Skin Contact:** Wash thoroughly with soap and water

**Ingestion:** Induce vomiting and consult with a physician

## Section 5

### **Fire and Explosion Data:**

**Flash Point and Method:** 345° F COC Auto ignition T

**Flammable Limits:** Upper-N/A, Lower-N/A

**Extinguishing Media:** Water, Foam, CO<sub>2</sub>

**Special Fire Fighting Procedures:** NIOSH/MSHA self-contained breathing apparatus should be provided for confined areas. Do not enter any enclosed or confined fire space without proper protective equipment.

## Section 6

### **Spill/Leak Procedures:**

Sweep into proper receptacle

Avoid airborne dust

Wear personal protective equipment

Dispose in accordance with local, state, and federal regulations

## Section 7

### **Handling and Storage:**

Store material in a dry area with containers tightly closed

Avoid physical damage to containers and avoid creating airborne dust

Do not store product with food and/or tobacco products

## Section 8

### **Protective Equipment:**

None required

Safety glasses - Optional

Protective Gloves for handling material is recommended

Dust Respirator – Optional

### **Occupational Exposure Limits:**

Sawdust – OSHA recommends standard maximum permissible concentration 5.0 mg/M<sup>3</sup> at an 8-hour time weighted average

Oil – OSHA recommends standard maximum permissible concentration 5.0 mg/M<sup>3</sup> at an 8-hour time weighted average

Sand – NIOSH recommends standard maximum permissible concentration of 0.05 mg/M<sup>3</sup> as

#2 Utility Grade Sweeping Compound

determined by a full shift sample up to 10 hour working day, 40-hour work week

## Section 9

### **Physical Data:**

**Boiling Point:** N/A

**Freezing Point:** N/A

**Specific Gravity:** 1.5

**Melting Point:** 844° C

**Solubility in Water:** N/A

**Reactivity in Water:** N/A

**Appearance and Odor:** Sawdust-Sand-Oil Mixture, Slight oil and lemon odor

## Section 10

### **Reactivity Data:**

**Stability of Product under Normal Conditions:** Stable

**Incompatibilities:** Strong acids, Alkalies, and Oxidizers

**Hazardous Decomposition Products:** Burning or excessive heating may produce  
Carbon Monoxide and other harmful substances

**Hazardous Polymerization:** Not subject to polymerization

### **HMIS Rating:**

Health – 1

Fire – 0

Reactivity – 0

## Section 11

### **Likely routes of exposure and immediate effects:**

**Inhalation:** Irritation of the respiratory system, cough, shortness of breath, wheezing

**Eye Contact:** Swelling, discomfort associated with foreign substance within the eye

**Ingestion:** Mild discomfort, vomiting

**Numerical measures of toxicity:** N/A

### **Symptoms:**

**Inhalation:** Cough, shortness of breath, wheezing

**Eye Contact:** Swelling, tearing, discomfort associated with foreign substance within the eye

**Ingestion:** Vomiting

## Section 12

**Ecological Information:** No data is available.

## Section 13

**Waste Disposal Method:** Product and Packaging waste do not dump in sewers or into any body of water.  
Please follow all local regulations regarding disposal.

## Section 14

**Transport Information:** Not classified as hazardous for transportation.

## Section 15

**Regulatory Information:** Not classified as hazardous material

## Section 16

### **Other Information:**

**Disclaimer:** This information is based on the data presently available and to the best of our knowledge is accurate. But, we make no warranty, expressed or implied, regarding the accuracy of this data or the results obtained from its use; and, any use of the material itself or in combination with any other material or any process is the sole responsibility of the user. This SDS is dated 7/31/2015.



# Safety Data Sheet

587

SDS Revision Date:

08/25/2015

## 1. Identification

### 1.1. Product identifier

**Product Identity** 587

**Alternate Names** 587

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

**Intended use** See Technical Data Sheet.

**Application Method** See Technical Data Sheet.

### 1.3. Details of the supplier of the safety data sheet

**Company Name** John Tillman Company  
1300 W. Artesia Blvd.  
Compton, CA 90220. USA

### Emergency

**24 hour Emergency Telephone No.** 310-764-0110

**Customer Service:** 310-764-0110

## 2. Hazard(s) identification

### 2.1. Classification of the substance or mixture

Eye Irrit. 2;H319 May cause eye irritation.

### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Warning**

H319 May cause eye irritation.

### **[Prevention]:**

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

### **[Response]:**

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

P337+313 If eye irritation persists: Get medical advice / attention.

### **[Storage]:**



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No GHS storage statements

**[Disposal]:**

No GHS disposal statements

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Ingredient/Chemical Designations          | Weight % | GHS Classification | Notes |
|---|----------|--------------------|-------|
| Fibrous glass<br>CAS Number: 0065997-17-3 | 100      | Eye Irrit. 2;H319  | [1]   |

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

|                   |   |
|-------------------|---|
| <b>General</b>    | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. |
| <b>Inhalation</b> | Drink water to clear throat, blow nose to evacuate fibers.  |
| <b>Eyes</b>       | Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.              |
| <b>Skin</b>       | Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.                       |
| <b>Ingestion</b>  | If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.  |

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

|                 |   |
|-----------------|---|
| <b>Overview</b> | Exposure with the product may cause skin, eye, and respiratory tract irritation. See section 2 for further details. |
| <b>Eyes</b>     | May cause eye irritation.   |

### 5. Fire-fighting measures

#### 5.1. Extinguishing media

Water, carbon dioxide, or dry chemical.





**5.2. Special hazards arising from the substance or mixture**

Hazardous decomposition: Carbon monoxide, carbon dioxide

**5.3. Advice for fire-fighters**

Thermal decomposition of fiber coating may produce an Irritating mixture of smoke and fumes. Fire fighters should wear full protective gear including NIOSH approved self-contained breathing apparatus.

ERG Guide No. ----

**6. Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Put on appropriate personal protective equipment (see section 8).

**6.2. Environmental precautions**

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

**6.3. Methods and material for containment and cleaning up**

Prevent the spread of fiberglass dust & avoid dust generation conditions. Those involved in clean up of particulates should use appropriate personal protective equipment. Vacuum clean dusts. If sweeping is necessary, use a dust suppressant.

**7. Handling and storage**

**7.1. Precautions for safe handling**

See section 2 for further details. - [Prevention]:

**7.2. Conditions for safe storage, including any incompatibilities**

Store and use in a manner that will prevent airborne particulates in the workplace.

Incompatible materials: Strong oxidizing agents.

See section 2 for further details. - [Storage]:

**7.3. Specific end use(s)**

No data available.

**8. Exposure controls and personal protection**

**8.1. Control parameters**

**Exposure**

| CAS No.      | Ingredient           | Source | Value  |
|--------------|----------------------|--------|--|
| 0065997-17-3 | Fibrous glass, glass | OSHA   | 15 mg/m3 (as nuisance dust)5 mg/m3 (respirable fraction) |
|              |                      | ACGIH  | 10 mg/m3 (as nuisance dust)5 mg/m3 (respirable fraction) |
|              |                      | NIOSH  | No Established Limit                                     |



|  |  |          |                      |
|--|--|----------|----------------------|
|  |  | Supplier | No Established Limit |
|--|--|----------|----------------------|

**Carcinogen Data**

| CAS No.      | Ingredient           | Source | Value  |
|--------------|----------------------|--------|--|
| 0065997-17-3 | Fibrous glass, glass | OSHA   | Select Carcinogen: No  |
|              |                      | NTP    | Known: No; Suspected: No   |
|              |                      | IARC   | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |

**8.2. Exposure controls**

- Respiratory** Where dust level exceeds the TLV, use NIOSH approved respirator to protect against nuisance dusts.
- Eyes** Safety glasses with side shield goggles.
- Skin** Work aprons or smocks are recommended. Wear loose fitting long sleeved clothing. NIOSH approved air supplied or self contained respirator. Protective Gloves and barrier creams if necessary.
- Engineering Controls** Local Exhaust Recommended for processing machinery where dust generation is apparent. Mechanical exhaust is acceptable where local exhaust is not feasible.
- Other Work Practices** Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

**9. Physical and chemical properties**

|  |  |
|--|--|
| <b>Appearance</b>                                      | Plain Weave Heavy Weight Fiberglass Fabric   |
| <b>Odor</b>  | No smell   |
| <b>Odor threshold</b>                                  | Not determined   |
| <b>pH</b>  | Not Measured   |
| <b>Melting point / freezing point</b>                  | > 1000°F   |
| <b>Initial boiling point and boiling range</b>         | Not Measured   |
| <b>Flash Point</b>                                     | 250°C (TOC)  |
| <b>Evaporation rate (Ether = 1)</b>                    | Not Measured   |
| <b>Flammability (solid, gas)</b>                       | Not Applicable   |
| <b>Upper/lower flammability or explosive limits</b>    | <b>Lower Explosive Limit:</b> Not Measured<br><b>Upper Explosive Limit:</b> Not Measured |
| <b>Vapor pressure (Pa)</b>                             | Not Measured   |
| <b>Vapor Density</b>                                   | Not Measured   |
| <b>Specific Gravity</b>                                | 2.5  |
| <b>Solubility in Water</b>                             | None   |
| <b>Partition coefficient n-octanol/water (Log Kow)</b> | Not Measured   |
| <b>Auto-ignition temperature</b>                       | Not Measured   |
| <b>Decomposition temperature</b>                       | Not Measured   |
| <b>Viscosity (cSt)</b>                                 | Not Measured   |



**9.2. Other information**

No other relevant information.

**10. Stability and reactivity**

**10.1. Reactivity**

Hazardous Polymerization will not occur.

**10.2. Chemical stability**

Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

Strong oxidizing agents.

**10.6. Hazardous decomposition products**

Carbon monoxide, carbon dioxide

**11. Toxicological information**

**Acute toxicity**

| Ingredient                          | Oral LD50, mg/kg  | Skin LD50, mg/kg  | Inhalation Vapor LC50, mg/L/4hr | Inhalation Dust LC50, mg/L/4hr | Inhalation Gas LC50, ppm |
|-------------------------------------|-------------------|-------------------|---------------------------------|--------------------------------|--------------------------|
| Fibrous glass, glass - (65997-17-3) | No data available | No data available | No data available               | No data available              | No data available        |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

| Classification                | Category | Hazard Description             |
|-------------------------------|----------|--------------------------------|
| Acute toxicity (oral)         | ---      | Not Applicable                 |
| Acute toxicity (dermal)       | ---      | Not Applicable                 |
| Acute toxicity (inhalation)   | ---      | Not Applicable                 |
| Skin corrosion/irritation     | ---      | Not Applicable                 |
| Serious eye damage/irritation | 2        | Causes serious eye irritation. |
| Respiratory sensitization     | ---      | Not Applicable                 |



|                        |     |                |
|------------------------|-----|----------------|
| Skin sensitization     | --- | Not Applicable |
| Germ cell mutagenicity | --- | Not Applicable |
| Carcinogenicity        | --- | Not Applicable |
| Reproductive toxicity  | --- | Not Applicable |
| STOT-single exposure   | --- | Not Applicable |
| STOT-repeated exposure | --- | Not Applicable |
| Aspiration hazard      | --- | Not Applicable |

## 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

| Ingredient                          | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|-------------------------------------|-----------------------|----------------------------|-------------------|
| Fibrous glass, glass - (65997-17-3) | Not Available         | Not Available              | Not Available     |

### 12.2. Persistence and degradability

There is no data available on the preparation itself.

### 12.3. Bioaccumulative potential

Not Measured

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

## 13. Disposal considerations

### 13.1. Waste treatment methods

In most cases, woven fiberglass scrap can be disposed of in a sanitary landfill in accordance with Federal, State, & local regulations. Check with local authorities any questions concerning disposal.

## 14. Transport information

|                        | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA     |
|------------------------|---------------------------------------|-----------------------------------|---------------|
| <b>14.1. UN number</b> | Not Applicable                        | Not Regulated                     | Not Regulated |



|   |   |   |                                  |
|---|---|---|----------------------------------|
| <b>14.2. UN proper shipping name</b>      | Not Regulated                           | Not Regulated   | Not Regulated                    |
| <b>14.3. Transport hazard class(es)</b>   | <b>DOT Hazard Class:</b> Not Applicable | <b>IMDG:</b> Not Applicable<br><b>Sub Class:</b> Not Applicable | <b>Air Class:</b> Not Applicable |
| <b>14.4. Packing group</b>                | Not Applicable                          | Not Applicable  | Not Applicable                   |
| <b>14.5. Environmental hazards</b>        |   |   |                                  |
| <b>IMDG</b>                               | Marine Pollutant: No                    |   |                                  |
| <b>14.6. Special precautions for user</b> |   |   |                                  |
| No further information                    |   |   |                                  |

**15. Regulatory information**

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act ( TSCA)** All components of this material are either listed or exempt from listing on the TSCA Inventory.

**WHMIS Classification** D2B

**US EPA Tier II Hazards**

**Fire:** No  
**Sudden Release of Pressure:** No  
**Reactive:** No  
**Immediate (Acute):** Yes  
**Delayed (Chronic):** No

**EPCRA 311/312 Chemicals and RQs:**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**EPCRA 302 Extremely Hazardous:**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**EPCRA 313 Toxic Chemicals:**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Carcinogens (>0.0%):**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Developmental Toxins (>0.0%):**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Female Repro Toxins (>0.0%):**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Male Repro Toxins (>0.0%):**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**New Jersey RTK Substances (>1%) :**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Pennsylvania RTK Substances (>1%) :**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**16. Other information**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.



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## Safety Data Sheet

**587**

**SDS Revision Date:**

**08/25/2015**

We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H319 Causes serious eye irritation.

End of Document

# 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](http://www.buckeyefire.com)  
Email Address: [bfec@buckeyef.com](mailto: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.



# SAFETY DATA SHEET

## 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<br>Total Dust- 15 mg/m <sup>3</sup><br>Respirable Fraction- 5 mg/m <sup>3</sup> | Particulates Not Otherwise Classified<br>Total Dust- 10 mg/m <sup>3</sup><br>Respirable Fraction- 3 mg/m <sup>3</sup> |
| Barium sulfate         | Particulates Not Otherwise Classified<br>Total Dust- 15 mg/m <sup>3</sup><br>Respirable Fraction- 5 mg/m <sup>3</sup> | Particulates Not Otherwise Classified<br>Total Dust- 10 mg/m <sup>3</sup><br>Respirable Fraction- 3 mg/m <sup>3</sup> |
| Mica                   | 6 mg/m <sup>3</sup>   | 3 mg/m <sup>3</sup>   |
| Amorphous Silica       | 6 mg/m <sup>3</sup>   | 10 mg/m <sup>3</sup>  |
| Stannous octoate       | .1 mg/m <sup>3</sup>  | .1 mg/m <sup>3</sup>  |
| 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./ft<sup>3</sup>@ 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

# SAFETY DATA SHEET

## ABC DRY CHEMICAL

### 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<br>36/37/38 | Harmful if swallowed<br>Irritating to eyes, respiratory system, and skin.   |
| S Phrases-         | 26<br>36       | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice<br>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](http://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<br>315<br>319<br>335  | May be harmful if swallowed<br>Causes skin irritation<br>Causes serious eye irritation<br>May cause respiratory irritation   |
| Environmental         | None   |  |
| <b>Precautionary:</b> |  |  |
| General               | P101   | If medical advice is needed, have product container or label at hand   |
| Prevention            | P251<br>261<br>264<br>280  | Do not pierce or burn, even after use.<br>Avoid breathing dust/fumes/gas/mist/vapours/spray.<br>Wash exposed skin thoroughly after handling.<br>Wear protective gloves/protective clothing/eye protection/face protection.   |
| Response              | P312<br>321<br>362<br>302+352<br>304+340<br>305+351+338<br><br>332+313<br>342+311<br>337+313 | Call a doctor if you feel unwell.<br>Specific treatment (see Section 4. First Aid Measures)<br>Take off contaminated clothing.<br>IF ON SKIN: Wash with plenty of water.<br>IF INHALED: Remove person to fresh air and keep comfortable for breathing.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.<br>If skin irritation occurs: Get medical advice/attention.<br>If experiencing respiratory symptoms: Call a doctor.<br>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:

Adverse health effects and symptoms:

Light yellow, fine solid powder, odorless.

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**<br>Total dust, 15 mg/m <sup>3</sup><br>Respirable fraction, 5 mg/m <sup>3</sup> | PNOC<br>Total dust, 10 mg/m <sup>3</sup><br>Respirable fraction, 3 mg/m <sup>3</sup> | PNOC<br>Total dust, 4 mg/m <sup>3</sup><br>Respirable fraction, 1.5 mg/m <sup>3</sup> | NA     |
| Mica                    | 6 mg/m <sup>3</sup>  | 3 mg/m <sup>3</sup>  | -----   | NA     |
| Attapulgite clay        | PNOC**<br>Total dust, 15 mg/m <sup>3</sup><br>Respirable fraction, 5 mg/m <sup>3</sup> | PNOC<br>Total dust, 10 mg/m <sup>3</sup><br>Respirable fraction, 3 mg/m <sup>3</sup> | PNOC<br>Total dust, 4 mg/m <sup>3</sup><br>Respirable fraction, 1.5 mg/m <sup>3</sup> |        |
| Silicone oil            | NR**   | NR   |   |        |
| Calcium carbonate       | PNOC<br>Total dust, 15 mg/m <sup>3</sup><br>Respirable fraction, 5 mg/m <sup>3</sup>   | PNOC<br>Total dust, 10 mg/m <sup>3</sup><br>Respirable fraction, 3 mg/m <sup>3</sup> | -----   | NA     |
| Amorphous silica        | 20mppcf    80 mg/m <sup>3</sup><br>or    % SiO <sub>2</sub>                            | 10 mg/m <sup>3</sup>   | 4 mg/m <sup>3</sup>   | 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 <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> : 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 <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> : 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 <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> : 1.41 mm/Hg |
| Specific gravity at 25 °C:               | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> : 1.80       |
| Solubility:                              | 40.4 g/100 ml   |
| Partition Coefficient:                   | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> Est: -4.11   |
| Viscosity:                               | No information available                                    |

NOTE: NH<sub>4</sub>H<sub>2</sub>PO<sub>4</sub> – 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).<br>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 <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> Est: 0.693 (Rapid);<br>(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> : Est: 0.684 (Rapid) |
| Anaerobic biodegradation probability:  | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> Est: 0.398 (Slow);<br>(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> : Est: 0.398 (Slow)   |
| Bioaccumulation potential:   | Low.   |
| Bioconcentration factor:   | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> : 3.16 L/kg (wet weight) (Low BCF)  |
| Bioaccumulation factor:  | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> : 63.04 L/kg (wet weight)   |
| Mobility in soil:  | Slow evaporation rate; water soluble, may leach to groundwater   |
| Log Koc:   | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> Est: -1.25  |
| Log Koa:   | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> Est: 16.72  |
| Log Kaw:   | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> Est: -20.86   |
| NOTE: NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> – 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;<br>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<br>7722-76-1                  | Not Applicable  | Not Applicable                                 | Not Applicable   | Not Applicable                          | Not Applicable                           |
| Attapulgitte clay<br>12174-11-7 (>3)                 | Not Applicable  | Not Applicable                                 | Not Applicable   | Not Applicable                          | Not Applicable                           |
| Mica-potassium aluminum silicate<br>120001-26-2 (>2) | Not Applicable  | Not Applicable                                 | Not Applicable   | Not Applicable                          | Not Applicable                           |
| Calcium carbonate<br>471-34-1                        | Not Applicable  | Not Applicable                                 | Not Applicable   | Not Applicable                          | Not Applicable                           |
| Amorphous silica<br>69012-64-2                       | Not Applicable  | Not Applicable                                 | Not Applicable   | Not Applicable                          | Not Applicable                           |
| Yellow 14 pigment<br>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 |

|                                      |
|--------------------------------------|
| <b>Section 16. OTHER INFORMATION</b> |
|--------------------------------------|

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.





CAMEL GRINDING WHEELS

KIBBUTZ SARID 30099, ISRAEL TEL. 972-6-6507-216 FAX. 972-6-6540-899
US OFFICE: 7525 North Oak Park Avenue, Niles, IL 60714
Phone: 800-447-4248 Fax: 800-447-3731
http://www.cgwheels.com

MATERIAL SAFETY DATA SHEET

ABRASIVE FLAP WHEELS
ABRASIVE FLAP DISC - POLYMER BACKED

Section I - Company Information

Manufacturers Name:
CAMEL GRINDING WHEELS

Emergency Telephone Number:
800-447-4248

Address:
7525 North Oak Park Avenue
Niles, IL 60714

Telephone Number for Information:
800-447-4248

Date Prepared: January 1, 2013

Section II - Composition of Components

Table with 3 columns: Hazardous Components, OSHA PEL, and ACGIH TLV. Rows include Aluminum Oxide, Zirconium Oxide, Calcium Carbonate, Epoxy Resin, Black Carbon, and Fibre Glass.



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### **Section III - Physical/Chemical Characteristics**

**Boiling Point:** N/A

**Vapor Pressure (mm Hg.):** N/A

**Vapor Density (AIR=1):** N/A

**Specific Gravity (H<sub>2</sub>O=1):** >1

**Melting Point:** 400-500 degrees fahrenheit

**Solubility in Water:** Paper label has slight water solubility

**Evaporation Rate:** (Butyl Acetate=1): N/A

**Appearance and Odor:** Solid polymer disc coated with flaps of abrasive cloth, no odor

---

### **Section IV - Fire and Explosion Hazard Data**

**Flash Point :** N/A

**Flammable Limits:** 200 degrees

- CLEL: N/A

- UEL: N/A

**Extinguishing Media:** Water

**Special Fire Fighting Procedures:** None

**Unusual Fire and Explosion Hazards:** Intense heat, dense black smoke, carbon monoxide, hydrogen cyanide, ammonia, aldehydes and carbon dioxide

---

### **Section V - Reactivity Data**

**Stability:** Stable

**Incompatibility (Materials To Avoid):** Avoid strong acids of all types with pH<4.0

**Hazardous Polymerization:** Will not occur

**Hazardous Byproducts:** Grinding dust may produce respiratory hazard

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## **Section VI – Health Hazard Data**

**Routes of Entry:** Inhalation, Skin

**Health Hazards (Acute and Chronic):** May affect breathing capacity

**Signs and Symptoms of Exposure:**

- Inhalation: coughing, shortness of breath
- Eye: irritation
- **Skin: irritation**

**Emergency and First Aid Procedures:**

- Inhalation overexposure: remove to fresh air and contact physician if needed
- Skin contact: wash affected areas with soap and water, obtain medical assistance if needed
- Eye contact: wash with water, obtain medical assistance if needed
- Ingestion: no known adverse effects, but advisable to obtain medical assistance

---

## **Section VIII – Precautions for Safe Handling and Use**

**Steps to be Taken in Case Material is Released or Spilled:**

- Ventilate area and collect material in safe manner.

**Water Disposal Method:**

- Standard landfill methods with federal, state and local laws.

**Precautions to be Taken in Handling and Storing:**

- Avoid mechanic damage, handle and store in accordance with ANSI B 7.1
- Always handle and store carefully
- Inspect wheel prior to mounting.
- Make sure machine speed is compatible to speed of wheel

**Other precautions:**

- Follow ANSI Safety Code B 7.1 for the use, care and protection of abrasive wheels

# SAFETY DATA SHEET

## Acetylene

### Section 1. Identification

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

### Section 2. Hazards identification

|   |   |
|---|---|
| <b>OSHA/HCS status</b>                            | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).   |
| <b>Classification of the substance or mixture</b> | : FLAMMABLE GASES - Category 1<br>GASES UNDER PRESSURE - Compressed gas   |
| <b>GHS label elements</b>                         |   |
| <b>Hazard pictograms</b>                          | :    |
| <b>Signal word</b>                                | : Danger  |
| <b>Hazard statements</b>                          | : Extremely flammable gas.<br>Contains gas under pressure; may explode if heated.<br>May displace oxygen and cause rapid suffocation.<br>May form explosive mixtures with air.  |
| <b>Precautionary statements</b>                   |   |
| <b>General</b>                                    | : 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. |
| <b>Prevention</b>                                 | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  |
| <b>Response</b>                                   | : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.   |
| <b>Storage</b>                                    | : Protect from sunlight. Store in a well-ventilated place.  |
| <b>Disposal</b>                                   | : Not applicable.   |
| <b>Hazards not otherwise classified</b>           | : 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

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

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | : 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.   |
| <b>Inhalation</b>   | : 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. |
| <b>Skin contact</b> | : 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.  |
| <b>Ingestion</b>    | : As this product is a gas, refer to the inhalation section.   |

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

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

#### Over-exposure signs/symptoms

|                     |                     |
|---------------------|---------------------|
| <b>Eye contact</b>  | : No specific data. |
| <b>Inhalation</b>   | : No specific data. |
| <b>Skin contact</b> | : No specific data. |
| <b>Ingestion</b>    | : No specific data. |

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

|                            |   |
|----------------------------|---|
| <b>Notes to physician</b>  | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| <b>Specific treatments</b> | : 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><b>NIOSH REL (United States, 10/2016).</b><br/>           CEIL: 2662 mg/m<sup>3</sup><br/>           CEIL: 2500 ppm</p> <p><b>ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</b></p> <p><b>California PEL for Chemical Contaminants (Table AC-1) (United States). Oxygen Depletion [Asphyxiant].</b></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 (ft<sup>3</sup>/lb)** : 14.7058
- Gas Density (lb/ft<sup>3</sup>)** : 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

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

## Section 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.  |
| <b>Chemical stability</b>                 | : The product is stable.  |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.   |
| <b>Conditions to avoid</b>                | : 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. |
| <b>Incompatible materials</b>             | : Oxidizers   |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |
| <b>Hazardous polymerization</b>           | : 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 <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Acetylene               | 0.37               | -   | low       |

### Mobility in soil






Soil/water partition coefficient (K<sub>oc</sub>) : 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<br> | 2.1<br> | 2.1<br> | 2.1<br> | 2.1<br> |
| 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

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**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](#)

|                          |   |
|--------------------------|---|
| <b>Australia</b>         | : This material is listed or exempted.  |
| <b>Canada</b>            | : This material is listed or exempted.  |
| <b>China</b>             | : This material is listed or exempted.  |
| <b>Europe</b>            | : This material is listed or exempted.  |
| <b>Japan</b>             | : <b>Japan inventory (ENCS)</b> : This material is listed or exempted.<br><b>Japan inventory (ISHL)</b> : Not determined. |
| <b>New Zealand</b>       | : This material is listed or exempted.  |
| <b>Philippines</b>       | : This material is listed or exempted.  |
| <b>Republic of Korea</b> | : This material is listed or exempted.  |
| <b>Taiwan</b>            | : This material is listed or exempted.  |
| <b>Thailand</b>          | : Not determined.   |
| <b>Turkey</b>            | : This material is listed or exempted.  |
| <b>United States</b>     | : This material is active or exempted.  |
| <b>Viet Nam</b>          | : 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<br>GASES UNDER PRESSURE - Compressed gas | Expert judgment<br>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.



# Product Safety Data Sheet

## SECTION 1: IDENTIFICATION

**Product Name:** Alkaline Batteries (Not Labeled)

**Duracell Designations:**

| Duracell Designation | Size | Nominal Voltage | IEC Designation |
|----------------------|------|-----------------|-----------------|
| MN/MX2400            | AAA  | 1.5V            | LR03            |
| MN/MX1500            | AA   | 1.5V            | LR6             |

**Product Use:** Energy Source

**SDS Date of Preparation:** May 5, 2016

**Company Identification:**

Duracell U.S. Operations, Inc.  
 Berkshire Corporate Park  
 Bethel, CT 06801 USA  
 Telephone: 203-796-4000  
 Email: duracellsds@duracell.com

| Duracell U.S. Operations, Inc. - LaGrange Plant                             | Duracell U.S. Operations, Inc. - Cleveland Plant                 | Duracell U.S. Operations, Inc. - Lancaster Plant                | Duracell Batteries BVBA - Aarschot Belgium Plant                          |
|---|--|---|---|
| 1567 Lukken Industrial Drive West<br>LaGrange, GA 30240<br>+1-706- 884-6171 | 501 Mouse Creek Road<br>Cleveland, TN 37312<br>+1- 423- 478-6000 | 1551 Highway 9 Bypass<br>Lancaster, SC 29720<br>+1-803-285-8401 | Nijverheidslaan 1-7<br>B - 3200 Aarschot<br>Belgium<br>0032(0)16 55 20 11 |

**Emergency Phone Number:** 1(800) 424-9300 for US and Canada (CHEMTREC)  
 +1 (703) 527-3887 for International Calls (call CHEMTREC collect)

## SECTION 2: HAZARDS IDENTIFICATION

These products are classified as Articles under REACH and are not subject to the requirements for Information in the Supply Chain (Safety Data Sheets and Labels). While batteries may release hazardous substances if damaged, this is not an intended release as defined under REACH. Batteries are not classified as hazardous under the CLP.

These products are also classified as Articles under the US OSHA Hazard Communication Standard 29CFR 1910.1200, Canada WHMIS and the GHS. A Safety Data Sheet is not required for these products.

The following information is provided to assist in the safe use of our products.

**CAUTION:** Batteries may explode or leak, and cause chemical/thermal burn injury, if recharged, disposed of in fire, mixed with a different battery type, inserted backwards or disassembled. Do not carry batteries loose in your pock or purse. Keep small batteries (i.e., AAA) away from children. If swallowed, consult a physician at once.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

These batteries consist of the chemicals listed below in a sealed can. No exposure occurs under normal conditions of use.

| Chemical Name                   | CAS Number | EINECS Number | Amount  |
|---------------------------------|------------|---------------|---------|
| Manganese Dioxide               | 1313-13-9  | 215-202-6     | 30-45 % |
| Zinc                            | 7440-66-6  | 231-175-3     | 10-25 % |
| Potassium Hydroxide (35%)       | 1310-58-3  | 215-181-3     | 5-15 %  |
| Graphite (natural or synthetic) | 7782-42-5  | 231-955-3     | 1-5%    |

### SECTION 4: FIRST AID MEASURES

**General Advice:** The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused.

**Eye Contact:** If battery is leaking and material contacts the eye, flush thoroughly with copious amounts of running water for 30 minutes. Seek immediate medical attention.

**Skin Contact:** If battery is leaking and material contacts the skin, remove any contaminated clothing and flush exposed skin with copious amounts of running water for at least 15 minutes. If irritation, injury or pain persists, seek medical advice.

**Inhaled:** If battery is leaking, contents may be irritating to respiratory passages. Move to fresh air. If irritation persists, seek medical advice.

**Swallowed:** Do not induce vomiting. Seek medical attention immediately. **CALL NATIONAL BATTERY INGESTION HOTLINE** (located in the United States of America) at **+(202)-625-3333 collect, day or night.**

**Note to Physician:** Damaged battery will release concentrated potassium hydroxide, which is caustic.

### SECTION 5: FIRE FIGHTING MEASURES

**Fire and Explosion Hazards:** Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

**Extinguishing Media:** Use any extinguishing media that is appropriate for the surrounding fire.

**Special Fire Fighting Procedures:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

**Hazardous Combustion Products:** Thermal degradation may produce hazardous fumes of zinc and manganese; hydrogen gas, caustic vapors of potassium hydroxide and other toxic by-products.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**SPECIAL NOTE:** In the event of transport incidents involving damage to the battery packaging, please see Emergency Information in Appendix A.

Notify safety personnel of large spills. Caustic potassium hydroxide may be released from leaking or ruptured batteries. Ventilate area. Carefully collect batteries and place in an appropriate container for disposal. Avoid eye and skin contact and inhalation of vapors and fumes. Clean-up personnel should wear appropriate protective clothing, such as:

- Chemical resistant gloves



- Protective clothing against splashing of corrosive products
- Safety Boots
- Goggle
- Face shield if there is a risk of splashing

#### SECTION 7: HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Batteries may explode, pyrolize or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions. Do not mix battery systems, such as alkaline and zinc carbon, in the same equipment. Replace all batteries in equipment at the same time. Do not carry batteries loose in a pocket or bag.

**Precautions To Be Taken in Storage:** Store batteries in a dry place at normal room temperature. Do not refrigerate. Batteries must remain oriented as packaged and shipped. Batteries may short circuit if positive end is allowed to contact one another or any metal objects.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:** No exposure to the battery components should occur during normal use.

**Ventilation:** No special ventilation is needed for normal use.

**Respiratory Protection:** None required for normal use.

**Skin Protection:** None required for normal use. Use neoprene, rubber or latex gloves when handling leaking batteries.

**Eye Protection:** None required for normal use. Wear safety goggles when handling leaking batteries.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance (color, physical form, shape):** AA and AAA size batteries which have a cylindrical (round) shape.

#### SECTION 10: STABILITY AND REACTIVITY

Stable under normal conditions of use. Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge .

#### SECTION 11: TOXICOLOGICAL INFORMATION

**Potential Health Effects:**

The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused.

#### SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to present an environmental hazard. Does not contain any added mercury, cadmium or lead.

#### SECTION 13: DISPOSAL INFORMATION

Do not incinerate. Disposal should be in accordance with the EU Battery Directive 206/66/EC or local regulations.

**SECTION 14: TRANSPORT INFORMATION**

**Alkaline battery products, covered by this SDS, in their original form, are considered “dry cell” batteries and are not regulated for transportation as “DANGEROUS GOODS.”** However, special regulatory concerns apply that require batteries to be packaged in a manner that prevents the generation of a dangerous quantity of heat and short circuits.

- Ground Transport (ADR/RID):** NONE
- Air Transport (IATA):** NONE
- Marine/Water Transport (IMDG/ICAO):** NONE

**SECTION 15: REGULATORY INFORMATION**

- EU Classification of Preparation:** Not classified as a dangerous preparation
- EU Battery Directive:** Duracell alkaline batteries comply with the substance restriction limits and labeling requirements set forth in the **EU Battery Directive 2006/66/EC** and as a result contain <0.0005% (5 ppm) mercury, <0.002% (20 ppm) cadmium and <0.004% (40 ppm) lead. The chemical symbols Hg, Cd and Pb are therefore **not** required below the separate collection symbol.
- EU RoHS Directive:** Batteries are not subject regulation.
- EU REACH:** Subject battery products are “articles” under REACH and not subject to REACH registration or e-SDS requirements. To the best of our knowledge, Duracell alkaline batteries do not contain any of the 73 SVHC per the ECHA updated listed 12/19/2011.
- EU Labeling:** None required. Labeling is not required because batteries are classified as articles under both REACH and the Dangerous Preparations Directive and as such are exempt from the requirement for labeling.
- US OSHA Status:** While the finished product(s) is considered an article and not covered by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, this PSDS contains valuable information critical to the safe handling and proper use of the product".
- EPA TSCA Status:** All intentionally-added components of this product are listed on the US TSCA Inventory.
- SARA 313/302/304/311/312 chemicals:** Articles are not subject to reporting
- California:** This product has been evaluated and does not require warning labeling under California Proposition 65.
- Canada:** All intentionally-added components of this product are listed on the Canadian DSL. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this PSDS contains all information required by the Controlled Products Regulations.

**SECTION 16: OTHER INFORMATION**

**Hazard Rating:**      Health: 0      Fire: 0      Reactivity: 0

=====  
 Data supplied is for use only in connection with occupational safety and health.

**DISCLAIMER:** This Product Safety Data Sheet is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble Duracell to be dependable and is accurate to the best of the Company’s knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. Duracell assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

## Appendix A

### Emergency Information for Transport Incidents

#### Intervention procedure:

- a. Use caution when opening the truck in case of an accident, the load may have shifted. The required personal protective equipment should be worn.
- b. The batteries can short circuit and heat to a temperature of over 100°C.
- c. Caution, shorted cells can release amounts of hydrogen and carbon monoxide.
- d. Before entering the container, vent sufficiently with fresh air or take air measurements and prevent ignition sources.
- e. Before handling batteries, the proper personal protective equipment should be worn. This is to prevent direct contact with the batteries and (its) contents.
  - i. Chemical protective gloves
  - ii. Protective clothing against splashing of corrosive products.
  - iii. Safety boots
  - iv. Goggles
  - v. Face mask (shield) if there is a risk of splashing.



## 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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## 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<br>12174-11-7      | TWA: 1 mg/m <sup>3</sup> respirable<br>particulate matter | -        | -   | -          |
| Calcium carbonate<br>471-34-1 | -   | -        | TWA: 10 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable<br>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

|                       |                   |              |        |
|-----------------------|-------------------|--------------|--------|
| <b>Physical State</b> | powder            | <b>Color</b> | Yellow |
| <b>Odor</b>           | odorless          |              |        |
| <b>Odor Threshold</b> | 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<sub>x</sub>).

## 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<br>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<br>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<br>7783-20-2 | -                     | LC50 96 h 460 - 1000 mg/L<br>Leuciscus idus static; LC50 96 h<br>123 - 128 mg/L Poecilia reticulata<br>semi-static; LC50 96 h = 126 mg/L<br>Poecilia reticulata; LC50 96 h > 100<br>mg/L Pimephales promelas; LC50<br>96 h 32.2 - 41.9 mg/L<br>Oncorhynchus mykiss flow-through;<br>LC50 96 h 5.2 - 8.2 mg/L<br>Oncorhynchus mykiss static; LC50<br>96 h = 18 mg/L Cyprinus carpio;<br>LC50 96 h = 480 mg/L Brachydanio<br>rerio flow-through; LC50 96 h = 420<br>mg/L Brachydanio rerio semi-static;<br>LC50 96 h = 250 mg/L Brachydanio<br>rerio | LC50 48 h = 14 mg/L Daphnia<br>magna; EC50 24 h = 423 mg/L<br>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 |
|-------------------------|---------------------------|
| Attapulgit - 12174-11-7 | Carcinogen                |

**U.S. State Right-to-Know Regulations**

| Chemical name                                   | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Silicic Acid/silica gel, Amorphous<br>7631-86-9 | -          | X             | X            |
| Magnesium carbonate<br>546-93-0                 | X          | X             | -            |

**16. Other information, including date of preparation of the last revision**

|             |                  |                |                    |                                    |
|-------------|------------------|----------------|--------------------|------------------------------------|
| <b>NFPA</b> | Health Hazards 0 | Flammability 0 | Instability 0      | Physical and chemical properties - |
| <b>HMIS</b> | 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

|                                      |   |
|--------------------------------------|---|
| <b>GHS product identifier</b>        | : Argon   |
| <b>Chemical name</b>                 | : Argon   |
| <b>Other means of identification</b> | : Argon-40; Argon, isotope of mass 40; 40Ar; ARGON; Argon,Welding Quality; ARGON, COMPRESSED                                  |
| <b>Product type</b>                  | : Gas.  |
| <b>Product use</b>                   | : Synthetic/Analytical chemistry.   |
| <b>Synonym</b>                       | : Argon-40; Argon, isotope of mass 40; 40Ar; ARGON; Argon,Welding Quality; ARGON, COMPRESSED                                  |
| <b>SDS #</b>                         | : 001004  |
| <b>Supplier's details</b>            | : Airgas USA, LLC and its affiliates<br>259 North Radnor-Chester Road<br>Suite 100<br>Radnor, PA 19087-5283<br>1-610-687-5253 |
| <b>24-hour telephone</b>             | : 1-866-734-3438  |

### Section 2. Hazards identification

|   |  |
|---|--|
| <b>OSHA/HCS status</b>                            | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |
| <b>Classification of the substance or mixture</b> | : GASES UNDER PRESSURE - Compressed gas<br>SIMPLE ASPHYXIANTS  |
| <b>GHS label elements</b>                         |  |
| <b>Hazard pictograms</b>                          | :   |
| <b>Signal word</b>                                | : Warning  |
| <b>Hazard statements</b>                          | : Contains gas under pressure; may explode if heated.<br>May displace oxygen and cause rapid suffocation.  |
| <b>Precautionary statements</b>                   |  |
| <b>General</b>                                    | : 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. |
| <b>Prevention</b>                                 | : Not applicable.  |
| <b>Response</b>                                   | : Not applicable.  |
| <b>Storage</b>                                    | : Protect from sunlight. Store in a well-ventilated place.   |
| <b>Disposal</b>                                   | : Not applicable.  |
| <b>Supplemental label elements</b>                | : Keep container tightly closed. Use only with adequate ventilation. Do not enter storage areas and confined spaces unless adequately ventilated.  |
| <b>Hazards not otherwise classified</b>           | : 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

|                                      |  |
|--------------------------------------|--|
| <b>Substance/mixture</b>             | : Substance  |
| <b>Chemical name</b>                 | : Argon  |
| <b>Other means of identification</b> | : Argon-40; Argon, isotope of mass 40; 40Ar; ARGON; Argon,Welding Quality; ARGON, COMPRESSED |
| <b>Product code</b>                  | : 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 (ft<sup>3</sup>/lb)** : 9.7087
- Gas Density (lb/ft<sup>3</sup>)** : 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 <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Argon                   | 0.74               | -   | low       |

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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<br> | 2.2<br> | 2.2<br> | 2.2<br> | 2.2<br> |
| 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

## A-09E

### Section 1 : Identification

**GHS identifier** : Carbide Burrs

**Product CODE** : **01-V** Carbide Burrs (001; 002; 003; 004; 005; 006; 007; 008; 009; 010 ; 011; 013; 014; 015; 016; 017; 018; 020; 021; 022; 023; 024; 025; 026; 027; 028; 029; 030; 031; 032; 033; 034; 035; 036; 037; 038; 039; 040; 041; 042; 043; 044; 045; 046; 047; 048; 049; 050; 051; 052; 601; 602; 604; 605; 606; 607; 609; 610; 613; 614; 615; 626; 631; 641; 644; 646; 652)

**SDS No** : A-09E

**Product type** : All carbide burrs

**Identified Uses** : Tooling

**Manufacturer** : Walter Surface Technologies Inc.

810 Day Hill Road

Windsor, CT 06095

United States

General Information: 18665925837

[www.walter.com](http://www.walter.com)

#### Emergency telephone number

INFOTRAC® 1800-535-5053, Outside U.S.A call collects: 1-352-323-3500

24 Hours/Day, 7 days/week

**Section 2 : Hazards Identification**

**OSHA/HCS Status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Classification** : Not classified

**GHS Label Element**

**Signal Word** : No signal word

**Hazard Statement** : No known significant effects or critical hazards

**Precautionary Statements**

**General** : Read Safety Data Sheet before use. Keep out of reach of children.

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Hazard Not Otherwise Classified** : None known

**Section 3: Ingredients and composition of product**

**Hazardous Ingredients** :

| Ingredient Name    | CAS Number | Concentration (%) |
|--------------------|------------|-------------------|
| Cobalt             | 7440-48-4  | 3-30              |
| Tungsten Carbide   | 12070-12-1 | >50               |
| Chromium Carbide   | 12012-35-0 | 0-6               |
| Molybdenum Carbide | 12069-89-5 | 0-6               |

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

All Walter Surface Technologies' carbides burrs are manufactured articles. The greatest part of the projected dust during the work comes from the work piece and not from the brush.

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

- Inhalation** : Move victim to fresh air. If the victim still feels unwell, consult a physician.
- Skin Contact** : Wash gently and thoroughly with lukewarm, flowing water and non-abrasive soap for 5 minutes. If signs/symptoms develop, consult a physician.
- Eyes Contact** : Flush the contaminated eye(s) with large amounts of clean water for 5 minutes while holding the eyelid(s) open. Do not remove embedded objects. Continue rinsing. Consult physician if necessary.
- Ingestion** : Dilute with water. Consult physician if necessary.
- Others** : Treat scrapes or cuts by cleaning wound. Apply sterile dressing.

### Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards
- Skin Contact** : No known significant effects or critical hazards
- Eyes Contact** : No known significant effects or critical hazards
- Ingestion** : No known significant effects or critical hazards

#### Over-exposure signs/symptoms

- Inhalation** : No known significant effects or critical hazards
- Skin Contact** : No known significant effects or critical hazards
- Eyes Contact** : No known significant effects or critical hazards
- Ingestion** : No known significant effects or critical hazards

#### Indication of any immediate medical attention and special treatment needed

None

See toxicological information (Section 11)

## Section 5: Fire-Fighting Measures

### Extinguish Media

**Suitable extinguish Media** : Water, sodium, chloride, soda ash

**Unsuitable extinguish Media** : None Known

### **Hazardous thermal decomposition products:**

During combustion, toxic fumes may occur, use protective equipment. Decomposition products may include the following material:

Substance: Carbon monoxide and Carbon Dioxide

### **Special protective actions for fire-fighter:**

No special measures are required.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : Not applicable

**For emergency responders** : Not applicable

**Environmental precautions** : Not applicable

### Methods and materials for containment and cleaning up

Not applicable

## Section 7: Handling and Storage

**Precautions for safe handling** : Follow safety standards for grinding (ANSI B11.09-2010)

**Precautions for safe storage** : There is no special storage requirement

## Section 8: Exposure Control & Personal Protection

### Control parameters

#### Occupational exposure limit :

The following table presents the limit for air contaminant from OSHA 1910-Z-1 Table.

| Ingredient name    | Limit value (mg/m <sup>3</sup> ) |
|--------------------|----------------------------------|
| Cobalt             | 0.1                              |
| Tungstene Carbide  | Not available                    |
| Chromium Carbide   | Not available                    |
| Molybdenum Carbide | Not available                    |

When used in conformity with the industry standards, the cobalt percentage in the air from the carbide burrs is below 0.1 mg/m<sup>3</sup>.

**Appropriate engineer control** : General ventilation is adequate to evacuate the dust from the working area. With good ventilation, the exposure of every ingredient should be below the limit. Make sure all the equipment is in good condition.

**Environment exposure control** : Not applicable

### Individual Personal Protection

**Eyes Protection** : Wear protective goggles with safe shields.

**Hand Protection** : Wear Gloves.

**Skin Protection** : Wear long clothes. Smock is recommended.

**Respiratory Protection** : Use of a protective half or full face mask.

**Hearing Protection** : Ear protection is recommended.

## Section 9: Physical & Chemical Properties

### Appearance

|                           |                   |
|---------------------------|-------------------|
| Physical state            | : Solid           |
| Appearance                | : Dark grey metal |
| Odour                     | : Odorless        |
| Boiling Point             | : Not available   |
| Freezing Point            | : Not available   |
| Specific Gravity          | : 11.0 to 15.5    |
| pH                        | : Not available   |
| Vapour Pressure           | : Not available   |
| Evaporation               | : Not available   |
| Flashpoint                | : Not available   |
| Auto ignition temperature | : Not available   |
| Sensitivity to mechanical | : Not available   |

## Section 10: Stability & Reactivity

|                                   |                          |
|-----------------------------------|--------------------------|
| Reactivity                        | : None known             |
| Chemical Stability                | : This product is stable |
| Possibility to Hazardous Reaction | : None known             |
| Conditions to avoid               | : None know              |
| Incompatible Material             | : None known             |

### Hazardous decomposition products:

Under normal conditions of use, hazardous decomposition products should not be produced.

**Section 11: Toxicology**

Information on toxicological effects

**Acute Toxicity** :

| Ingredient Name | Oral Acute Toxicity     |
|-----------------|-------------------------|
| Cobalt          | LD50:> 6170 mg/kg (Rat) |

**Irritation/Corrosion** : Uncontrolled dust can affect eyes and respiration.

**Sensitization** : No known significant effects

**Carcinogenicity** : No known significant effects

**Reproductive Toxicity** : No known significant effects

**Specific target organ toxicity - Single exposure:** No known significant effects

**Specific target organ toxicity - Repeated exposure:** No known significant effects

**Aspiration Hazard** : No known significant effects

Information on the likely routes of exposure:

Inhalation, Skin contact, Eyes contact, Ingestion

Potential acute health effects

**Inhalation** : No known significant effects or critical hazards

**Skin Contact** : No known significant effects or critical hazards

**Eyes Contact** : No known significant effects or critical hazards

**Ingestion** : No known significant effects or critical hazards

Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : No known significant effects or critical hazards

**Skin Contact** : No known significant effects or critical hazards

**Eyes Contact** : No known significant effects or critical hazards

**Ingestion** : No known significant effects or critical hazards

Short term exposure

**Potential immediate effect:** No known significant effects or critical hazards

**Potential delayed effect:** No known significant effects or critical hazards

Long term exposure

**Potential immediate effect:** No known significant effects or critical hazards

**Potential delayed effect:** No known significant effects or critical hazards

Potential Chronic Health Effects

**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

**Section 12: Ecological Information**

Toxicity

**Aquatic Toxicity** : No know significant effects or critical hazards.

**Persistence and degradability:** No know significant effects or critical hazards.

**Bioaccumulation potential:** No know significant effects or critical hazards.

**Mobility in soil** : No know significant effects or critical hazards.

**Other adverse effects** : No know significant effects or critical hazards.

**Section 13: Disposal Considerations**

**Disposal methods** : Dispose as per local, regional, national and international regulations.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**EPA Hazardous Waste Number (RCRA):** Not regulated



**Section 14: Transport Information**

|                         | DOT Classification | IMDG          | IATA          |
|-------------------------|--------------------|---------------|---------------|
| UN Number               | Not Regulated      | Not Regulated | Not Regulated |
| UN Proper shipping name | -                  | -             | -             |
| Transport Hazards Class | -                  | -             | -             |
| Packing Group           | -                  | -             | -             |
| Environmental Hazards   | No                 | No            | No            |
| Additional Information  | -                  | -             | -             |

Special precautions for user : None

**Section 15: Regulatory Information**

US Federal Regulations : Contact Walter Surface Technologies for more information.

Hazard Categories: Fire Hazard – No, Pressure Hazard – No, Reactivity Hazard – No, Immediate Hazard –No, Delayed Hazard – No.

State Regulations : Contact Walter Surface Technologies for more information.

Chemical Inventories : This product is defined by TSCA regulations and is exempt from TSCA Inventory listing requirements.

International Regulations : Contact Walter Surface Technologies 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****History****Date of issue mm/dd/yyyy** : 05/21/2015**Version** : 1**Prepared by** : Walter Surface Technologies Inc.**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.

# Fiamm Sports Marine Big Horn

## Safety Data Sheet

According to Federal Register Rules and Regulations

Revision date:01/15/2015

| SECTION 1: Identification of the Substance/Mixture and Company Identification             |  |
|---|--|
| <b>1.1. Product identifier</b>  |  |
| Product form  | : Substance                                    |
| Trade name  | : Fiamm Sports Marine Big Horn 8 oz.           |
| CAS No  | : 811-97-2                                     |
| Formula   | : C <sub>2</sub> H <sub>2</sub> F <sub>4</sub> |
| <b>1.2. Relevant identified uses of the substance or mixture and uses advised against</b> |  |

Use of the substance/mixture : Follow Label Directions

Use of the substance/mixture : Aerosol Horn

### 1.3. Details of the supplier of the safety data sheet

MAX PRO  
P.O. BOX 9962  
FTLAUDERDALE  
FL, 33310  
T 954-972-3338

### 1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300

## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

#### Classification (GHS-US)

Compressed gas H280

### 2.2. Label elements

#### GHS-US labeling

Hazard pictograms (GHS-US)



GHS04

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H280 - Contains gas under pressure; may explode if heated

Precautionary statements (GHS-US)

: P410+P403 - Protect from sunlight. Store in a well-ventilated place  
P251 - Pressurized container: Do not pierce or burn, even after use  
P412 - Do not expose to temperatures exceeding 50°C/ 122°F

### 2.3. Other hazards

Other hazards not contributing to the classification: Contains gas under pressure; may explode if heated. Intentional misuse and inhalation abuse may cause cardiac or central nervous systems effects. Warning. May cause frostbite in contact with skin.

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

| Name                      | Product identifier | %    | Classification (GHS-US) |
|---------------------------|--------------------|------|-------------------------|
| 1,1,1,2-tetrafluoroethane | (CAS No)811-97-2   | > 99 | Compressed gas, H280    |

Full text of H-phrases: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First Aid Measures

### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. |
| First-aid measures after inhalation   | : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.  |
| First-aid measures after skin contact | : Rinse with water. Take victim to a doctor if irritation persists. In case of frostbites: Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.  |
| First-aid measures after eye contact  | : Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist.  |
| First-aid measures after ingestion    | : Not applicable.  |

### 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.   |
| Symptoms/injuries after inhalation   | : EXPOSURE TO HIGH CONCENTRATIONS: Accelerated heart action. Disturbances of heart rate. Coordination disorders. Feeling of weakness. Respiratory difficulties. Vomiting. Nausea. Disturbances of consciousness. Risk of lung edema. Respiratory collapse. |
| Symptoms/injuries after skin contact | : Red skin. Blisters. Frostbites.  |
| Symptoms/injuries after eye contact  | : Not applicable.  |
| Symptoms/injuries after ingestion    | : Not applicable.  |
| Chronic symptoms                     | : No effects known.  |

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

No additional information available

## SECTION 5: Fire Fighting Measures

### 5.1. Extinguishing media

|                                |  |
|--------------------------------|--|
| suitable extinguishing media   | : EXTINGUISHING MEDIA FOR SURROUNDING FIRES: Adapt extinguishing media to the environment. |
| Unsuitable extinguishing media | : No unsuitable extinguishing media known.   |

### 5.2. Special hazards arising from the substance or mixture

|                  |   |
|------------------|---|
| Fire hazard      | : DIRECT FIRE HAZARD. Non combustible.  |
| Explosion hazard | : INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. |

Reactivity : On burning: release of toxic and corrosive gases/vapors (hydrofluoric acid, carbon monoxide - carbon dioxide, carbonyl fluoride). Reacts with (some) acids.

### 5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: consider evacuation.  
Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. Dilute toxic gases with water spray.  
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.  
Other information : NFPA Aerosol Level 1.

## SECTION 6: Accidental Release Measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Insulating gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.  
Emergency procedures : Keep upwind. Mark the danger area. Seal off low-lying areas. Close doors and windows of adjacent premises. No naked flames. Carry out specific temperature controls. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation.

#### 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 released substance, pump into suitable containers. Plug the leak, cut off the supply. Tip the container on one side to stop the leakage. Do not spray water on unheated tank walls.  
Methods for cleaning up : Damaged/cooled tanks must be emptied.

### 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 : Pressurized container: Do not pierce or burn, even after use.  
Precautions for safe handling : Comply with the legal requirements. Handle and open the container with care. Thoroughly clean/dry the installation before use. Keep away from naked flames/heat. Observe normal hygiene standards. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Measure the oxygen concentration in the air.

### 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 : Keep container closed when not in use.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight.  
Storage temperature : < 50 °C  
Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.  
Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: (strong) acids.  
Storage area : Store in a cool area. Keep out of direct sunlight. Ventilation at floor level. Aboveground. Meet the legal requirements.  
Special rules on packaging : SPECIAL REQUIREMENTS: with pressure relief valve. clean. correctly labeled. meet the legal requirements.  
Packaging materials : SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

### 7.3. Specific end use(s)

Follow Label Directions.

## SECTION 8: Exposure Controls/Personal Protection

## 8.1. Control parameters

## 8.2. Exposure controls

Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.



Materials for protective clothing : GIVE GOOD RESISTANCE: neoprene. nitrile rubber. butyl rubber.

Hand protection : Insulated gloves.

Eye protection : Safety glasses.

Skin and body protection : Protective clothing.

Respiratory protection : High vapor/gas concentration: self-contained respirator.

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                              | : Gas  |
| Appearance                                  | : Gas.   |
| Molecular mass                              | : 102.03 g/mol   |
| Color                                       | : Colorless.   |
| Odor  | : Ether-like odor.   |
| Odor threshold                              | : No data available  |
| pH  | : No data available  |
| Relative evaporation rate (butyl acetate=1) | : No data available  |
| Melting point                               | : -101 °C  |
| Freezing point                              | : No data available  |
| Boiling point                               | : -26 °C   |
| Flash point                                 | : Not applicable   |
| Critical temperature                        | : 101 °C   |
| Self ignition temperature                   | : > 743 °C   |
| Decomposition temperature                   | : 368 °C   |
| Flammability (solid, gas)                   | : No data available  |
| Vapor pressure                              | : 5720 hPa   |
| Critical pressure                           | : 40560 hPa  |
| Relative vapor density at 20 °C             | : 3.52 (20 °C)   |
| Relative density                            | : 1.2 (-27 °C)   |
| Density                                     | : 1206 kg/m <sup>3</sup> (-27 °C)  |
| Solubility                                  | : Poorly soluble in water. Soluble in ethanol. Soluble in ether. Soluble in hexane.<br>Water: 0.15 g/100ml (25 °C) |

|                      |  |
|----------------------|--|
| Log Pow              | : 1.06 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method) |
| 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  |
| Explosive limits     | : No data available  |

## 9.2. Other information

|                  |   |
|------------------|---|
| VOC content      | : 0 %   |
| Gas group        | : Compressed gas  |
| Other properties | : Gas/vapor heavier than air at 20°C. Substance has neutral reaction. May generate electrostatic charges. |

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (hydrofluoric acid, carbon monoxide - carbon dioxide, carbonylfluoride). Reacts with (some) acids.

### 10.2.

#### Chemical stability

Stable under normal conditions.

### 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.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### 134a (811-97-2)

|                            |                       |
|----------------------------|-----------------------|
| LC50 inhalation rat (mg/l) | > 2000 mg/l/4h (Rat)  |
| LC50 inhalation rat (ppm)  | > 359300 ppm/4h (Rat) |

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Not classified  |
| Serious eye damage/irritation     | : Not classified  |
| Respiratory or skin sensitization | : Not classified  |
| Germ cell mutagenicity            | : Not classified based on available data, the classification criteria are not met |
| Carcinogenicity                   | : Not classified  |

Reproductive toxicity : Not classified based on available data, the classification criteria are not met  
Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified based on available data, the classification criteria are not met

Aspiration hazard : Not classified based on available data, the classification criteria are not met  
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.  
Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Accelerated heart action. Disturbances of heart rate. Coordination disorders. Feeling of weakness. Respiratory difficulties. Vomiting. Nausea. Disturbances of consciousness. Risk of lung oedema. Respiratory collapse.  
Symptoms/injuries after skin contact : Red skin. Blisters. Frostbites.  
Symptoms/injuries after eye contact : Not applicable.  
Symptoms/injuries after ingestion : Not applicable.  
Chronic symptoms : No effects known.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No environmental hazard.  
Ecology - air : TA-LuftKlasse 5.2.5.  
Ecology - water : Mild water pollutant (surface water). Maximum concentration in drinking water: 1.5 mg/l (fluoride) (Directive 98/83/EC). Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l).

#### 134a (811-97-2)

LC50 fish 1 450 mg/l 96 h; Salmogairdneri (Oncorhynchusmykiss)  
EC50 Daphnia 1 980 mg/l (48 h; Daphnia magna)

### 12.2. Persistence and degradability

#### 134a (811-97-2)

Persistence and degradability | Not readily biodegradable in water.

### 12.3. Bioaccumulative potential

#### 134a (811-97-2)

BCF other aquatic organisms 1 5 - 58 (Estimated value)  
Log Pow 1.06 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)  
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Refer to manufacturer/supplier for information on recovery/ recycling.



Additional information : LWCA (the Netherlands): KGA category 06. Hazardous waste according to Directive 2008/98/EC.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

UN3159, 1,1,1,2-Tetrafluoroethane, 2.2, Limited Quantity

US DOT (ground):

ICAO/IATA (air): UN3159, 1,1,1,2-Tetrafluoroethane, 2.2, Limited Quantity

IMO/IMDG (water): UN3159, 1,1,1,2-Tetrafluoroethane, 2, Limited Quantity

Special Provisions: DOT-SP 10232: In accordance with this special permit, the product container is marked with DOT-SP10232 instead of 2Q. This packaging is approved for shipping as a Consumer Commodity.

DOT-SP 15146: In accordance with this special permit, the product container is marked with DOT-SP15146 instead of 2Q. This packaging is approved for shipping as a Consumer Commodity.

### 14.2. UN proper shipping name

DOT Proper Shipping Name : 1,1,1,2-Tetrafluoroethane

Department of Transportation (DOT) Hazard Classes : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

Hazard labels (DOT) : 2.2 - Non-flammable gas, ORM-D



DOT Special Provisions (49 CFR 172.102) : DOT-SP 10232: In accordance with this special permit, the product container is marked with DOT-SP10232 instead of 2Q. This packaging is approved for shipping as a Consumer Commodity.

: DOT-SP 15146: In accordance with this special permit, the product container is marked with DOT-SP15146 instead of 2Q. This packaging is approved for shipping as a Consumer Commodity.

Transportation Canada : TC-SU 11282

DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Packaging Non Bulk (49 CFR 173.xxx) : 304

DOT Packaging Bulk (49 CFR 173.xxx) : 314;315

### 14.3. Additional information

Other information : No supplementary information available.

State during transport (ADR-RID) : as liquefied gas, under pressure.

#### Overland transport

Class (ADR) : 2 - Gases

Hazard identification number (Kemler No.) : 20

Classification code (ADR) : 2A



Danger labels (ADR) : 2.2 - Non-flammable compressed gas

Orange plates

:

Tunnel restriction code : C/E

**Transport by sea**

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

EmS-No. (1) : F-C

EmS-No. (2) : S-V

**Air transport**

DOT Quantity Limitations Passenger aircraft/rail: 75 kg  
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR  
175.75)

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

**134a (811-97-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes Sudden release of pressure hazard

**15.2. International regulations**

**CANADA**

**134a (811-97-2)**

WHMIS Classification Class A - Compressed Gas

**EU-Regulations**

No additional information available

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

Press. Gas

Full text of H-phrases: see section 16

**Classification according to Directive 67/548/EEC or 1999/45/EC** Not classified

**15.2.2. National regulations**

No additional information available

**15.3. US State regulations**

No additional information available

**SECTION 16: Other information**

Indication of changes : Revision - See : \*.  
 Other information : None.  
 Full text of H-phrases: see section 16:

Compressed gas  
 H280

Gases under pressure Compressed gas  
 Contains gas under pressure; may explode if heated

NFPA health hazard

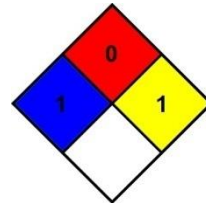
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



**HMIS III Rating**

Health : 1 Slight Hazard - Irritation or minor reversible injury possible  
 Flammability : 0 Minimal Hazard  
 Physical : 1 Slight Hazard  
 Personal Protection : B



**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](http://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)<br>15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Zirconium Oxide (as zirconium compounds)   | 5 mg/m3 TWA ACGIH TLV<br>10 mg/m3 STEL ACGIH TLV<br>5 mg/m3 TWA OSHA PEL  |
| Cured Phenolic Resin                       | None Established  |
| Nitrile Compounds                          | None Established  |
| Fluoride Compounds                         | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL   |
| Iron Pyrite                                | None Established  |
| Woven Fiberglass                           | 5 mg/m3 TWA ACGIH TLV (inhalable)<br>1 f/cc TWA ACGIH TLV (respirable)  |
| Calcium Compounds                          | None Established  |
| Sulfur                                     | None Established  |
| Calcium Oxide                              | 2 mg/m3 TWA ACGIH TLV<br>5 mg/m3 TWA OSHA PEL   |
| Cryolite (as fluorides)                    | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL   |
| Cured epoxy resin                          | None Established  |
| Titanium Dioxide                           | 10 mg/m3 TWA ACGIH TLV<br>15 mg/m3 TWA OSHA PEL (total dust)  |
| Calcium Carbonate                          | 15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction)  |
| Iron Oxide                                 | 5 mg/m3 TWA ACGIH TLV (respirable fraction)<br>10 mg/m3 TWA OSHA PEL (fume)   |
| Graphite                                   | 2 mg/m3 TWA ACGIH TLV (respirable fraction)<br>15 mppcf mg/m3 TWA OSHA PEL  |
| Aluminum Potassium Fluoride (as Al metal)  | 5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal)<br>15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Aluminum Potassium Fluoride (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL   |
| Potassium Fluoroborate (as fluorides)      | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL   |
| Titanium Dioxide                           | 10 mg/m3 TWA ACGIH TLV<br>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

|   |  |
|---|--|
| <b>Odor threshold:</b> Not applicable                         | <b>pH:</b> Not applicable                        |
| <b>Melting point/freezing point:</b> Not applicable           | <b>Boiling Point:</b> Not applicable             |
| <b>Flash point:</b> Not applicable                            | <b>Evaporation rate:</b> Not applicable          |
| <b>Flammability (solid, gas):</b> Not combustible             |  |
| <b>Flammable limits: LEL:</b> Not applicable                  | <b>UEL:</b> Not applicable                       |
| <b>Vapor pressure:</b> Not applicable                         | <b>Vapor density:</b>                            |
| <b>Relative density:</b> Not applicable                       | <b>Solubility(ies):</b> Not soluble              |
| <b>Partition coefficient: n-octanol/water:</b> Not applicable | <b>Auto-ignition temperature:</b> Not applicable |
| <b>Decomposition temperature:</b> Not applicable              | <b>Viscosity:</b> 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 |
|------------|-----------|----------------------|--------------|---------------|----------------------|
| <b>DOT</b> | None      | Not Regulated        | None         | None          |                      |
| <b>TDG</b> | 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)<br>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)<br>15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction)                                      |
| Silicon Carbide                          | 3 mg/m3 TWA ACGIH TLV (respirable fraction)<br>10 mg/m3 TWA ACGIH TLV (inhalable fraction)<br>15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Zirconium Oxide (as zirconium compounds) | 5 mg/m3 TWA ACGIH TLV<br>10 mg/m3 STEL ACGIH TLV<br>5 mg/m3 TWA OSHA PEL   |
| Cured Phenolic Resin                     | None Established   |
| Nitrile Compounds                        | None Established   |
| Fluoride Compounds                       | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL  |
| Iron Pyrite                              | None Established   |
| Woven Fiberglass                         | 5 mg/m3 TWA ACGIH TLV (inhalable)<br>1 f/cc TWA ACGIH TLV (respirable)   |
| Calcium Compounds                        | None Established   |
| Sulfur                                   | None Established   |
| Calcium Oxide                            | 2 mg/m3 TWA ACGIH TLV<br>5 mg/m3 TWA OSHA PEL  |
| Cryolite (as fluorides)                  | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL  |
| Cured epoxy resin                        | None Established   |
| Titanium Dioxide                         | 10 mg/m3 TWA ACGIH TLV<br>15 mg/m3 TWA OSHA PEL (total dust)   |
| Calcium Carbonate                        | 15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction)   |

|  |   |
|--|---|
| Aluminum Potassium Fluoride (as Al metal)  | 5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal)<br>15 mg/m3 TWA OSHA PEL (total dust)<br>5 mg/m3 TWA OSHA PEL (respirable fraction) |
| Aluminum Potassium Fluoride (as fluorides) | 2.5 mg/m3 TWA ACGIH TLV<br>2.5 mg/m3 TWA OSHA PEL   |
| Iron Oxide                                 | 5 mg/m3 TWA ACGIH TLV (respirable fraction)<br>10 mg/m3 TWA OSHA PEL (fume)   |
| Graphite                                   | 2 mg/m3 TWA ACGIH TLV (respirable fraction)<br>15 mppcf mg/m3 TWA OSHA PEL  |
| Potassium Fluoroborate (as fluorides)      | 2.5 mg/m3 TWA ACGIH TLV<br>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

|   |  |
|---|--|
| <b>Odor threshold:</b> Not applicable                         | <b>pH:</b> Not applicable                        |
| <b>Melting point/freezing point:</b> Not applicable           | <b>Boiling Point:</b> Not applicable             |
| <b>Flash point:</b> Not applicable                            | <b>Evaporation rate:</b> Not applicable          |
| <b>Flammability (solid, gas):</b> Not combustible             |  |
| <b>Flammable limits: LEL:</b> Not applicable                  | <b>UEL:</b> Not applicable                       |
| <b>Vapor pressure:</b> Not applicable                         | <b>Vapor density:</b>                            |
| <b>Relative density:</b> Not applicable                       | <b>Solubility(ies):</b> Not soluble              |
| <b>Partition coefficient: n-octanol/water:</b> Not applicable | <b>Auto-ignition temperature:</b> Not applicable |
| <b>Decomposition temperature:</b> Not applicable              | <b>Viscosity:</b> 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.



# MATERIAL SAFETY DATA SHEET



## High Temperature Silicone Acetoxy High Temperature Sealant

Revision 1  
Prepared 2011-1-27

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** High Temperature Silicone  
**Product Codes:** HTS100  
**Synonyms:** Silicone elastomer  
**General Use:** Sealant and adhesive, general purpose

**Telephone Number for Information**  
+1-800-638-3160

**Emergency Telephone Number**  
+1-800-638-3160

**Manufacturer**  
EverKem Diversified Products  
5180 Indiana Avenue  
Winston-Salem, NC 27106 USA

### SECTION 2 - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

Red, heavy bodied paste; acetic acid odor. May be irritating to skin, eyes and respiratory system.

NOTE: Acetic acid is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 10 ppm and ACGIH TLV: TWA 10 ppm, STEL 15 ppm.

**OSHA/HCS Status:** This material contains "Hazardous Chemicals" as defined by the OSHA Hazard Communication Standard (28 CFR 1910.1200).

**EEC LABELING AND RISK PHRASES** Xi, R36/37/38, R41

#### EXPECTED ROUTES OF EXPOSURE

EYE CONTACT SKIN INHALATION

#### EFFECTS OF OVEREXPOSURE

**EYES:** Direct contact may cause moderate irritation.

**SKIN:** May cause moderate irritation.

**INHALATION:** Material is not likely to present an inhalation hazard at ambient conditions. However, if material is heated or high vapor concentration is attained, central nervous system depression may occur, which is characterized by drowsiness, dizziness, confusion or loss of coordination.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES/SKIN:** No known applicable information. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**INHALATION:** No known applicable information. Excessive exposure may cause irritation to the upper and lower respiratory system.

**ORAL:** Repeated ingestion or swallowing large amounts may injure internally.

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

No known applicable information.

### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

| % by Weight | Ingredient                               | CAS Number | EC Number | EC Classification |
|-------------|--|------------|-----------|-------------------|
| 7.0 - 13.0  | Silica, amorphous                        | 7631-86-9  | 265-148-2 | Xi, R36/37        |
| 5.0 - 10.0  | Hydrotreated middle petroleum distillate | 64742-46-7 | 265-148-2 | Carc. 2; Xn, R40  |
| 1.0 - 5.0   | Ethyltriacetoxysilane                    | 17689-77-9 | 241-677-4 | C, R34; Xn, R22   |
| 1.0 - 5.0   | Carbon black                             | 1333-86-4  | 215-609-9 | Carc. 2; Xn, R40  |
| 1.0 - 5.0   | Copper (II) phthalocyanine*              | 147-14-8   | 205-685-1 |                   |
| 1.0 - 5.0   | Methyltriacetoxysilane                   | 4253-34-3  | 224-221-9 | C, R34; Xn, R22   |
| 1.0 - 5.0   | Iron oxide                               | 1309-37-1  | 215-168-2 | Xi; R36/37/38     |
| 0.1 - 1.0   | Octamethylcyclotetrasiloxane             | 556-67-2   | 209-136-7 | Xn, R53, R62      |

\*Pigment Blue 15

### SECTION 4 - FIRST AID MEASURES

**INHALATION:** If product vapors cause respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention immediately.

**EYES:** Immediately flush eyes with lukewarm water for 15 - 20 minutes while holding the eyelid(s) open. If contact lens is present, DO NOT delay irrigation or attempt to remove lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.



**SKIN:** Remove contaminated clothing, shoes and leather goods. Quickly and gently blot or brush away excess chemical. Flush with lukewarm flowing water for 15 minutes. If irritation persists, repeat flushing. If irritation persists, obtain medical advice.

**INGESTION:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## SECTION 5 - FIRE FIGHTING MEASURES

|                                |            |            |                                    |
|--------------------------------|------------|------------|------------------------------------|
| <b>FLASH POINT</b>             | <b>LEL</b> | <b>UEL</b> | <b>FLAMMABILITY CLASSIFICATION</b> |
| >100° C (>212° F) (Closed Cup) | N.A.       | N.A.       | Not determined                     |

**EXTINGUISHING MEDIA:** On small fires use carbon dioxide, dry chemical or water spray. On large fires use dry chemical or water spray.

### SPECIAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

### SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. If possible, firefighters should control run-off water to prevent environmental contamination.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Wear appropriate protective clothing designated in Section 8. Remove all sources of ignition. Ventilate the area.

**SMALL & LARGE SPILLS:** Wipe or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases.

## SECTION 7 - HANDLING AND STORAGE

**HANDLING PRECAUTIONS:** Wear all appropriate protective equipment as specified in Section 8. Keep containers closed when not in use. Use with adequate ventilation. Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection. Avoid contact with eyes and skin. Avoid breathing vapor. Do not take internally.

**STORAGE CATEGORY:** Not applicable

**STORAGE PRECAUTIONS:** Use reasonable care and store away from oxidizing agents. Keep in cool, dry, ventilated storage areas in closed containers and away from water or moisture. Transfer only to approved containers having correct labeling. Containers that have been opened should be carefully resealed and kept upright to prevent leakage. Keep out of reach of children,

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Acetic acid (CAS #64-19-7) is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 10 ppm and ACGI TLV: TWA 10 ppm, STEL 15 ppm.

### OCCUPATIONAL EXPOSURE LIMITS

| CAS Number | Ingredient                                | OSHA PEL   | ACGIH TLV  | Other                             |
|------------|---|--|--|-----------------------------------|
| 7631-86-9  | Silica, amorphous                         | 80 mg/m3 TWA (final rule)  |  | NIOSH REL:<br>10 ppm TWA          |
| 64742-46-7 | Hydrotreated middle petroleum distillates | 5 mg/m3 TWA, 8 hours   | 5 mg/m3 TWA, 8 hours<br>10 mg/m3 STEL, 15 min.     |                                   |
| 17689-77-9 | Ethyltriacetoxysilane                     | See acetic acid comments.  |  |                                   |
| 1333-86-4  | Carbon black                              | 3.5 mg/m3 TWA<br>Table Z-1 Limits for Air<br>Contaminates - 1910.1000                  | 3.5 mg/m3 TWA                                      |                                   |
| 14714-8    | Copper (II) phthalocyanine                | 1 mg/m3 (dust and mists)<br>Observe copper limits.                                     | 1 mg/m3 (dust and mists)<br>Observe copper limits. |                                   |
| 4253-34-3  | Methyltriacetoxysilane                    | See acetic acid comments.  |  |                                   |
| 1309-37-1  | Iron oxide                                | 10 mg/m3 TWA (iron oxide fume)<br>Table Z-1 Limits for Air<br>Contaminates - 1910.1000 | 5 mg/m3 TWA  |                                   |
| 556-67-2   | Octamethylcyclotetra-siloxane             |  |  | Dow Corning Guide:<br>6 mg/m3 TWA |

**ENGINEERING CONTROLS:** Use adequate ventilation. Local exhaust is preferable. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**PROTECTIVE EQUIPMENT:** Wear protective clothing to prevent repeated or prolonged contact with product.

**RESPIRATORY PROTECTION:** Avoid breathing vapor. Respiratory protection is not needed under ambient conditions with adequate local exhaust. Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. If vapor is generated when material is heated or handled, appropriate respiratory protection should be worn. Always use a NIOSH/MESA approved respirator when vapor concentration exceeds applicable concentration limits.

**EYE PROTECTION:** Wear protective goggles or safety glasses with side shields during use. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

**HAND PROTECTION:** Neoprene rubber gloves, nitrile gloves or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable. Breakthrough time of selected gloves must be greater than the intended use period.

**WORK/HYGIENIC PRACTICES:** Facilities storing or using this material should be equipped with an eyewash station and safety shower. Practice safe workplace habits. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

|   |                           |                            |                |
|---|---------------------------|----------------------------|----------------|
| <b>APPEARANCE</b>                                     | Red paste                 | <b>pH</b>                  | Not determined |
| <b>ODOR</b>   | Acetic acid odor          | <b>VOLATILE VOLUME</b>     | Not determined |
| <b>DENSITY</b>  | 1.007 g/ml (8.404 lb/gal) | <b>EVAPORATION RATE</b>    | Not determined |
| <b>SPECIFIC GRAVITY</b>                               | 1.007                     | <b>VAPOR DENSITY</b>       | Not determined |
| <b>BOILING POINT</b>                                  | Not determined            | <b>SOLUBILITY IN WATER</b> | Negligible     |
| <b>MELTING POINT</b>                                  | Not determined            |                            |                |
| <b>VOLATILE ORGANIC COMPOUNDS (VOC)</b> Not available |                           |                            |                |

**SECTION 10 - STABILITY AND REACTIVITY**

|  |  |
|--|--|
| <b>Stability:</b>                            | Stable; contact with water or humid air may result in the release of acetic acid vapors.   |
| <b>Conditions to Avoid:</b>                  | Contact with incompatible materials and exposure to extreme temperatures.  |
| <b>Incompatibility (Materials to Avoid):</b> | Oxidizing agents. Water, moisture or humid air can cause hazardous vapors to form (acetic acid).   |
| <b>Hazardous Decomposition Products:</b>     | Thermal decomposition products include carbon oxides, traces of incompletely burned carbon compounds, silicone dioxide, formaldehyde, metal oxides, sulfur oxides, nitrogen oxides and chlorine compounds. |
| <b>Hazardous Polymerization:</b>             | Will not occur   |

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**ACUTE TOXICOLOGY DATA**

This product contains the following components which in their pure form have the following characteristics.

| CAS No.    | Ingredient Name                           | Test & Species                |        | Result                  |
|------------|---|-------------------------------|--------|-------------------------|
| 7631-86-9  | Silica, amorphous                         | Oral LD50                     | Rat    | >3,300 mg/kg            |
|            |   | Dermal LD50                   | Rabbit | >5,000 mg/kg            |
|            |   | Inhalation LC50               | Rat    | >2.08 mg/l - 4 h (dust) |
| 64742-46-7 | Hydrotreated middle petroleum distillates | Oral LD50                     | Rat    | >5,000 mg/kg            |
|            |   | Dermal LD50                   | Rabbit | >2,000 mg/kg            |
|            |   | Inhalation LC50               |        | Not available           |
| 17689-77-9 | Ethyltriacetoxysilane                     | Oral LD50                     | Rat    | 1,460 mg/kg             |
|            |   | Dermal LD50                   |        | Not available           |
|            |   | Inhalation LC50               |        | Not available           |
| 1333-86-4  | Carbon black                              | Oral LD50                     | Rat    | >15,400 mg/kg           |
|            |   | Dermal LD50                   | Rabbit | 3,000 mg/kg             |
|            |   | Inhalation LC50               | Rat    | >700 ppm - 4 h          |
| 147-14-8   | Copper (II) phthalocyanine                | Oral LD50                     | Rat    | >10,000 mg/kg           |
|            |   | Dermal LD50                   |        | Not available           |
|            |   | Inhalation LC50               |        | Not available           |
| 4253-34-3  | Methyltriacetoxysilane                    | Oral LD50                     | Rat    | 1,602 mg/kg             |
|            |   | Dermal LD50                   |        | Not available           |
|            |   | Inhalation LC50               |        | Not available           |
| 1309-37-1  | Iron oxide                                | Oral LD50                     | Rat    | Not available           |
|            |   | Inhalation LC50               |        | Not available           |
|            |   | Skin corrosion/irritation     | Human  | Skin Irritation         |
|            |   | Serious eye damage/irritation | Human  | Moderate eye irritation |
| 556-67-2   | Octamethylcyclotetra-siloxane             | Oral LD50                     | Rat    | >5,000 mg/kg            |
|            |   | Dermal LD50                   | Rabbit | >4,640 mg/kg            |
|            |   | Inhalation LC50               | Rat    | 36 mg/l - 4 hr vapor    |

**Potential Chronic Health Effects: Silica, Amorphous (CAS #7631-86-9)**

**Chronic Effects:** IARC Group 3 carcinogen (Not classifiable as to its carcinogenicity to humans). Not listed as a carcinogen by ACGIH, NTP or OSHA. No data is available regarding its mutagenicity, and/or teratogenicity, nor is there available data that indicates it causes adverse developmental and/or fertility effects. RTECS: VV7565000

**Potential Chronic Health Effects: Hydrotreated middle petroleum distillates (CAS #64742-46-7)**

**Chronic Effects:** Not listed as a carcinogen by IARC, ACGIH, NTP or OSHA. No data is available regarding its mutagenicity, and/or teratogenicity, nor is there available data that indicates it causes adverse developmental and/or fertility effects.

Middle distillates similar to the material included in this product have been associated with liver and kidney damage in subchronic (90-day) inhalation studies of male rats. In addition, certain middle distillates similar to this material have been associated with liver damage in mice. The relevance of these findings to human health is unclear.

**Potential Chronic Health Effects: Ethyltriacetoxysilane (CAS #17689-77-9)**

**Chronic Effects:** Not listed as a carcinogen by IARC, ACGIH, NTP or OSHA. No data is available regarding its mutagenicity, and/or teratogenicity, nor is there available data that indicates it causes adverse developmental and/or fertility effects.

**Potential Chronic Health Effects: Carbon Black (CAS #1333-86-4)**

**Chronic Effects:** IARC Group 2B carcinogen (possibly carcinogenic to humans). Not listed as a carcinogen by ACGIH, NTP or OSHA. Tumorigenic: Carcinogenic by RTECS criteria. Tumors: Lungs, thorax or respiratory system. RTECS: FF5800000  
Carcinogenicity - Rat - Inhalation

**Potential Chronic Health Effects: Copper (II) phthalocyanine (CAS #147-14-8)**

**Chronic Effects:** Not listed as a carcinogen by IARC, ACGIH, NTP or OSHA. No data is available regarding its mutagenicity, and/or teratogenicity, nor is there available data that indicates it causes adverse developmental and/or fertility effects. RTECS: GL8510000

**Potential Chronic Health Effects: Methyltriacetoxysilane (CAS #4253-34-3)**

**Chronic Effects:** Not listed as a carcinogen by IARC, ACGIH, NTP or OSHA. No data is available regarding its mutagenicity, and/or teratogenicity, nor is there available data that indicates it causes adverse developmental and/or fertility effects. RTECS: VV4500000

**Potential Chronic Health Effects: Iron Oxide (CAS #1309-37-1)**

**Chronic Effects:** IARC Group 3 carcinogen (Not classifiable as to its carcinogenicity to humans). ACGIH: A3 (Confirmed animal carcinogen with unknown relevance to humans). Not listed as a carcinogen by NTP or OSHA. Long term exposure can stain eyes causing "rust rings".  
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria (tumors at site of application). RTECS - NO7400000  
Long term exposure can stain eyes causing "rust rings".

**Potential Chronic Health Effects: Octamethylcyclotetrasiloxane (CAS #556-67-2)**

**Chronic Effects:** Not listed as a carcinogen by IARC, ACGIH, NTP or OSHA. Suspected human reproductive toxicant. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. RTECS: GZ4397000

**SECTION 12 - ECOLOGICAL INFORMATION**

This product contains the following components which in their pure form have the following characteristics. No listing made if data is unavailable.

**Data for Component: Hydrotreated middle petroleum distillates**

**Environmental Effects:** Analysis for ecological effects has not been conducted on this product. If spilled, this material and any contaminated soil or water may be hazardous to human, animal and aquatic life. Based upon actual spill incident investigations, similar kerosene mixtures have been shown to bioaccumulate in tissues of various fish from 1 ppm to 10 ppm levels.

**Biodegradation:** Inherently biodegradable in aerobic conditions (partition coefficient >4). Based on similar materials, this product will have little or no tendency to partition to air. Hydrocarbons from this material which do partition to air are expected to rapidly photodegrade. Not readily susceptible to hydrolysis under aquatic conditions. Principal distribution is to soil and sediment. Petroleum based oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

**Data for Component: Hydrotreated middle petroleum distillates**

**Aquatic Ecotoxicity** No data available

**Data for Component: Ethyltriacetoxysilane**

**Environmental Effects:** Bioaccumulation is not anticipated since this material is hydrolytically unstable. It undergoes rapid hydrolysis in aquatic media to form acetic acid and trisilanol; thus the exposures to this material is likely to be transient.

**Environmental Fate and Transport:** No data available

**Data for Component: Ethyltriacetoxysilane**

**Aquatic Ecotoxicity**

**Acute and prolonged toxicity to fish:** LC50 - Brachydanio rerio (Zebra fish), 96 h: 251 mg/L (test media) not neutralized  
**Acute toxicity to aquatic invertebrates:** EC0 - Daphnia magna (Water flea), 48 h: 65 mg/L (test media not neutralized)

**Data for Component: Carbon Black**

**Environmental Effects:** No data available

**Environmental Fate and Transport:** No data available

**Data for Component: Carbon Black**

**Aquatic Ecotoxicity**

**Acute and prolonged toxicity to fish:** LC50 - Danio rerio (zebra fish), 96 h: 1,000 mg/L  
**Acute toxicity to aquatic invertebrates:** EC50 - Daphnia magna (Water flea), 24 h: 5,600 mg/L  
**Acute toxicity to aquatic plants:** EC0 - Desmodesmus subspicatus (green algae), 72 h: >10,000 mg/L

**Data for Component: Methyltriacetoxysilane**

**Environmental Effects:** Bioaccumulation is not anticipated since this material is hydrolytically unstable. It undergoes rapid hydrolysis in aquatic media to form acetic acid and trisilanols; thus the exposures to this material is likely to be transient.

**Environmental Fate and Transport:** No data available

**Data for Component: Methyltriacetoxysilane**

**Aquatic Ecotoxicity** No data available

**Data for Component: Octamethylcyclotetrasiloxane**

**Environmental Effects:** No data available

**Environmental Fate and Transport:** No data available

**Data for Component: Octamethylcyclotetrasiloxane**

**Aquatic Ecotoxicity**

|   |  |
|---|--|
| <b>Acute and prolonged toxicity to fish:</b>    | LC50 - Brachydanio rerio (zebra fish), 96 h: >500 mg/L<br>LC50 - Lepomis macrochirus (Bluegill), 24 h: >1,000 mg/L |
| <b>Acute toxicity to aquatic invertebrates:</b> | EC50 - Daphnia magna (Water flea), 24 h: 25.2 mg/L   |

**SECTION 13 - DISPOSAL CONSIDERATIONS**

The generation of waste should be avoided or minimized whenever possible. Although this product is classified as non-hazardous under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261 this material and its container should be disposed of in a safe way as empty containers may contain product residue. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial and Local laws and regulations.

**SECTION 14 - TRANSPORT INFORMATION**

**Note:** Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

**DOT, Ground USA:** Not regulated for transportation  
**UN TGD, Canada:** Not regulated for transportation  
**IMO/IMDG:** Not regulated for transportation  
**ICAO/IATA:** Not regulated for transportation

**Signal Word:** None  
**Hazard Symbols:** None  
**Marine Pollutant:** This product is not a marine pollutant.

**SECTION 15 - REGULATORY INFORMATION**

**U. S. FEDERAL REGULATIONS**

**OSHA Hazard Communication Standard:** This material contains components which are "Hazardous Chemicals" as defined by the OSHA Hazard Communication Standard (28 CFR 1910.1200).

**TSCA Status:** All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory.

**Superfund Amendments and Reauthorization Act (SARA)**

**SARA Section 311/312 Hazard Categories:**

**Reactive hazard:** No **Pressure hazard:** No **Fire hazard:** No **Immediate/acute:** Yes **Delayed/chronic:** No

**SARA 313 Information:** This product contains copper (II) phthalocyanine (CAS #147-14-8) which is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986. (listed under Copper compounds, n.o.s.)

**SARA 302/304/311/312 Extremely Hazardous Substance:**

No components of the product are subject to the reporting requirements of these sections of Title III of SARA.

**SARA 302/304 Emergency Planning & Notification:**

No components of the product are subject to the reporting requirements of these sections of Title III of SARA.

**Comprehensive Response Compensation and Liability Act (CERCLA):** None of the components of this product are listed.

**Clean Air Act (CAA)**

This product does not contain any Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).  
This product does not contain any Class 1 Ozone depletors.  
This product does not contain any Class 2 Ozone depletors.

**Clean Water Act (CWA)**

Hydrotreated middle petroleum distillates (CAS #64742-46-7) are classified as oil under Section 311 of the CWA and the Oil Pollution Act of 1990.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.

**U.S. State Regulations**

**California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:**

This product does not contain chemical(s) known to the state of California to cause cancer or other reproductive harm.

**Other U.S. State Inventories:**

This product contains the following chemicals listed on the Massachusetts Hazardous Substance List:

Silica, amorphous (CAS #7631-86-9), Carbon black (CAS # 1333-86-4), Titanium dioxide (CAS #13463-67-7), Iron oxide (CAS # 1309-37-1)

This product contains the following chemicals listed on the Minnesota Hazardous Substances List:

Carbon black (1333-86-4), Octamethylcyclotetrasiloxane (CAS #556-67-2)

This product contains the following chemicals listed on the New Jersey State Right to Know Hazardous Substance List:

Dimethyl Siloxane, hydroxy terminated (CAS #70131-67-8), Silica, amorphous (CAS #7631-86-9), Carbon black (CAS # 1333-86-4), Hydrotreated middle petroleum distillates (CAS # 64742-46-7), Ethyltriacetoxysiloxane (CAS #17689-77-9), Iron oxide (CAS # 1309-37-1), Polydimethylsiloxane (CAS #63148-62-9), Copper (II) phthalocyanine (CAS # 147-14-8), Methyltriacetoxysiloxane (CAS #4253-34-3), Titanium dioxide (CAS #13463-67-7)

This product contains the following chemicals listed on the Pennsylvania Hazardous Substance List:

Dimethyl Siloxane, hydroxy terminated (CAS #70131-67-8), Silica, amorphous (CAS #7631-86-9), Carbon black (CAS # 1333-86-4), Hydrotreated middle petroleum distillates (CAS # 64742-46-7), Titanium dioxide (CAS #13463-67-7), Iron oxide (CAS # 1309-37-1)

**CANADA**

**WHMIS Hazard Symbol and Classification:**

Class D, Division 2, Subdivision A (VERY TOXIC)

Class D, Division 2, Subdivision B (TOXIC)



D-2 - Material causing other toxic effects

**Canadian Controlled Products Regulations (CPR):** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations, and the MSDS contains all the information required by the Controlled Products Regulations.

**Canadian Domestic Substances List / Non-Domestic Substances List (DS/NDSL):**

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 3 unless otherwise indicated.

**Canadian Ingredient Disclosure List (IDL):** Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 3.

**EUROPEAN ECONOMIC COMMUNITY**

**EUROPEAN COMMUNITY REGULATORY:** All intentional ingredients are listed on the European EINECS Inventory.

**EEC LABEL SYMBOL AND CLASSIFICATION:**

**EEC RISK PHRASES**

**R36/37/38** Irritating to eyes, respiratory system and skin.

**R41** Risk of serious damage to the eyes.

**EEC SAFETY PHRASES**

**S2** Keep out of reach of children.

**S24/25** Avoid contact with skin and eyes.

**S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**S51** Use only in well-ventilated areas..

**EEC LABEL SYMBOL(S):**



"Xi" - Irritant

**LABEL SYMBOL(S):**



Irritant

**SECTION 16 - OTHER INFORMATION**

**Hazardous Material Information System (HMIS)**

|                     |   |
|---------------------|---|
| Health              | 1 |
| Flammability        | 1 |
| Physical Hazard     | 0 |
| Personal Protection | C |

**HMIS HAZARD RATING Legend**

|                           |              |
|---------------------------|--------------|
| * = Chronic Health Hazard | 2 = MODERATE |
| 0 = INSIGNIFICANT         | 3 = HIGH     |
| 1 = SLIGHT                | 4 = EXTREME  |

**National Fire Protection Association (NFPA)**

**Flammability**



**Special**

**Full Text of Risk (R) – Phrases Referenced in Section 3.**

**R22** Harmful if swallowed.

**R34** Causes burns.

**R36/37** Irritating to eyes and respiratory system.

**R40** Limited evidence of carcinogenic effect.

**R53** May cause long-term adverse effects in the aquatic environment.

**R62** Risk of impaired fertility.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# Safety Data Sheet



## 1. Identification

|                             |   |                         |  |
|-----------------------------|---|-------------------------|--|
| <b>Product Name:</b>        | IC SSPR 6PK FLAT ZINC GALVANIZING<br>COMPND   | <b>Revision Date:</b>   | 1/29/2020  |
| <b>Product Identifier:</b>  | 1685830   | <b>Supersedes Date:</b> | 9/12/2019  |
| <b>Recommended Use:</b>     | Cold Galvanizing/Aerosol  |                         |  |
| <b>Supplier:</b>            | Rust-Oleum Corporation<br>11 Hawthorn Parkway<br>Vernon Hills, IL 60061<br>USA  | <b>Manufacturer:</b>    | Rust-Oleum Corporation<br>11 Hawthorn Parkway<br>Vernon Hills, IL 60061<br>USA |
|                             | Rust-Oleum Canada (ROCA)<br>200 Confederation Parkway<br>Concord, ON L4K 4T8<br>Canada<br>Emergency Phone: 800-387-3625 |                         |  |
| <b>Preparer:</b>            | Regulatory Department   |                         |  |
| <b>Emergency Telephone:</b> | 24 Hour Hotline: 847-367-7700   |                         |  |

## 2. Hazard Identification

### Classification

#### Symbol(s) of Product



#### Signal Word

Danger

#### Possible Hazards

17% of the mixture consists of ingredient(s) of unknown acute toxicity.

#### GHS HAZARD STATEMENTS

|                                     |      |   |
|-------------------------------------|------|---|
| Acute Toxicity, Oral, category 4    | H302 | Harmful if swallowed.   |
| Carcinogenicity, category 2         | H351 | Suspected of causing cancer.                                    |
| Compressed Gas                      | H280 | Contains gas under pressure; may explode if heated.             |
| Flammable Aerosol, category 1       | H222 | Extremely flammable aerosol.                                    |
| STOT, repeated exposure, category 1 | H372 | Causes damage to organs through prolonged or repeated exposure. |

#### 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/fume/gas/mist/vapors/spray.  |
| P264 | Wash hands thoroughly after handling.  |

|           |  |
|-----------|--|
| P280      | Wear protective gloves/protective clothing/eye protection/face protection.                 |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.                 |
| P308+P313 | IF exposed or concerned: Get medical advice/attention.                                     |
| P314      | Get medical advice/attention if you feel unwell.   |
| P330      | Rinse mouth.   |
| 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. |

**GHS SDS PRECAUTIONARY STATEMENTS**

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

### 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> |
|-------------------------------|----------------|-------------|-----------------------|-----------------------|
| Zinc                          | 7440-66-6      | 48          | GHS02-GHS07           | H250-260-302          |
| n-Butyl Acetate               | 123-86-4       | 20          | GHS02-GHS07           | H226-336              |
| Propane                       | 74-98-6        | 10          | GHS04                 | H280                  |
| Hydrotreated Light Distillate | 64742-47-8     | 5.7         | GHS08                 | H304                  |
| n-Butane                      | 106-97-8       | 4.8         | GHS04                 | H280                  |
| Xylenes (o-, m-, p- isomers)  | 1330-20-7      | 3.6         | GHS02-GHS07           | H226-315-319-332      |
| Zinc Oxide                    | 1314-13-2      | 1.7         | Not Available         | Not Available         |
| Stoddard Solvent              | 8052-41-3      | 1.6         | GHS08                 | H304-372              |
| Ethylbenzene                  | 100-41-4       | 0.8         | GHS02-GHS07-<br>GHS08 | H225-304-332-351-373  |

### 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 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. 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 %<br>Less Than | ACGIH TLV-<br>TWA   | ACGIH TLV-<br>STEL   | OSHA PEL-TWA        | OSHA PEL-<br>CEILING |
|-------------------------------|------------|-----------------------|---------------------|----------------------|---------------------|----------------------|
| Zinc                          | 7440-66-6  | 50.0                  | N.E.                | N.E.                 | N.E.                | N.E.                 |
| n-Butyl Acetate               | 123-86-4   | 20.0                  | 50 ppm              | 150 ppm              | 150 ppm             | N.E.                 |
| Propane                       | 74-98-6    | 15.0                  | N.E.                | N.E.                 | 1000 ppm            | N.E.                 |
| Hydrotreated Light Distillate | 64742-47-8 | 10.0                  | N.E.                | N.E.                 | N.E.                | N.E.                 |
| n-Butane                      | 106-97-8   | 5.0                   | 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.                 |
| Zinc Oxide                    | 1314-13-2  | 5.0                   | 2 mg/m <sup>3</sup> | 10 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup> | N.E.                 |
| Stoddard Solvent              | 8052-41-3  | 5.0                   | 100 ppm             | N.E.                 | 500 ppm             | N.E.                 |
| Ethylbenzene                  | 100-41-4   | 1.0                   | 20 ppm              | N.E.                 | 100 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. 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.

**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

|                                 |                     |   |           |
|---------------------------------|---------------------|---|-----------|
| <b>Appearance:</b>              | Aerosolized Mist    | <b>Physical State:</b>                              | Liquid    |
| <b>Odor:</b>                    | Solvent Like        | <b>Odor Threshold:</b>                              | N.E.      |
| <b>Specific Gravity:</b>        | 1.323               | <b>pH:</b>  | N.A.      |
| <b>Freeze Point, °C:</b>        | ND                  | <b>Viscosity:</b>                                   | N.D.      |
| <b>Solubility in Water:</b>     | Slight              | <b>Partition Coefficient, n-octanol/<br/>water:</b> | N.D.      |
| <b>Decomposition Temp., °C:</b> | N.D.                | <b>Explosive Limits, vol%:</b>                      | 0.8 - 9.5 |
| <b>Boiling Range, °C:</b>       | -37 - 537           | <b>Flash Point, °C:</b>                             | -96       |
| <b>Flammability:</b>            | Supports Combustion | <b>Auto-ignition Temp., °C:</b>                     | N.D.      |
| <b>Evaporation Rate:</b>        | Faster than Ether   | <b>Vapor Pressure:</b>                              | N.D.      |
| <b>Vapor Density:</b>           | 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 alkalies.

**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:** No Information

**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).

**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> |
|----------------|-------------------------------|------------------|---------------------|-------------------|
| 7440-66-6      | Zinc                          | 630 mg/kg Rat    | N.E.                | N.E.              |
| 123-86-4       | n-Butyl Acetate               | 10768 mg/kg Rat  | >17600 mg/kg Rabbit | > 21 mg/L Rat     |
| 64742-47-8     | Hydrotreated Light Distillate | >5000 mg/kg Rat  | >2000 mg/kg Rabbit  | >5000 mg/L Rat    |
| 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    |
| 1314-13-2      | Zinc Oxide                    | >5000 mg/kg Rat  | N.E.                | N.E.              |
| 100-41-4       | Ethylbenzene                  | 3500 mg/kg Rat   | 15400 mg/kg Rabbit  | 17.4 mg/L Rat     |

N.E. - Not Established

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** 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> |
|------------------------------|---|-----------------------------|---------------------|---------------------|
| <b>UN Number:</b>            | N.A.  | 1950                        | 1950                | N.A.                |
| <b>Proper Shipping Name:</b> | Paint and Related Spray Products in Ltd Qty | Aerosols                    | Aerosols, flammable | Aerosols            |
| <b>Hazard Class:</b>         | N.A.  | 2                           | 2.1                 | N.A.                |
| <b>Packing Group:</b>        | N.A.  | N.A.                        | N.A.                | N.A.                |
| <b>Limited Quantity:</b>     | 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, Acute Toxicity (any route of exposure), 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:

| <u>Chemical Name</u>         | <u>CAS-No.</u> |
|------------------------------|----------------|
| Zinc                         | 7440-66-6      |
| Xylenes (o-, m-, p- isomers) | 1330-20-7      |
| Zinc Oxide                   | 1314-13-2      |
| 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](http://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      0.68

SDS REVISION DATE:      1/29/2020

REASON FOR REVISION:      Substance and/or Product Properties Changed in Section(s):  
01 - Identification  
03 - Composition/Information on Ingredients  
09 - Physical & Chemical Properties  
Substance Hazardous Flag Changed  
Substance Hazard Threshold % Changed  
Revision Statement(s) Changed

Legend:      N.A. - Not Applicable, N.D. - Not Determined, N.E. - Not Established

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.

|                                     |                         |
|-------------------------------------|-------------------------|
| <b>IRWIN Chalk – Blue, Standard</b> | <b>November 3, 2016</b> |
|                                     | <b>Revision 1</b>       |

### 1. PRODUCT and COMPANY IDENTIFICATION

Commercial Product Name: IRWIN Chalk – Blue  
Company: IRWIN Tools  
Use of product: Snap line, mark  
Emergency contact: 1-800-464-7946 8:00am-5:00pm Monday-Friday

### 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW: Non-combustible blue solid powder with no odor. Irritating to eyes, skin, and respiratory system. Exposure to large quantities of this material may cause acute irritation of eyes and difficulty breathing.**

#### OSHA GHS Hazard Statements (Warning Label)

**DANGER – May cause cancer (lung) (Category 1A)**

#### 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

**Eye:** May cause irritation. Chalk dust is discomforting and abrasive to the eyes.

**Skin:** Prolonged skin contact may cause irritation. May cause an allergic reaction in certain individuals. 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). When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.



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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance name                           | Value (%) | CAS No.    | EC No.    |
|--|-----------|------------|-----------|
| Calcium carbonate <sup>1</sup>           | 80-85     | 471-34-1   | 207-439-9 |
| Ultramarine blue                         | 15-20     | 57455-37-5 | none      |
| Silica (crystalline quartz) <sup>1</sup> | 0.1 - 1   | 14808-60-7 | 238-878-4 |

<sup>1</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

# SAFETY DATA SHEET

IRWIN Chalk – Blue

## 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:** Wash mouth out with plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical aid.

**Additional advice:** Show this safety data sheet to the doctor in attendance

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Substance is noncombustible.

**Explosion:** No information found.

**Specific hazards:** Not considered to be a significant fire risk, however; the containers may burn, releasing carbon monoxide, and carbon dioxide.

**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 – Blue

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

| Component                                     | CAS No.                  | % by weight | Exposure Limit 8-Hour TWA <sup>1</sup> (mg/m <sup>3</sup> ) |                   |                                |
|---|--------------------------|-------------|---|-------------------|--------------------------------|
|   |                          |             | OSHA PEL  | ACGIH TLV         | NIOSH REL                      |
| Calcium Carbonate <sup>4</sup><br>(Limestone) | 471-34-1;<br>(1317-65-3) | 80-85       | 15 <sup>2</sup> 5 <sup>3</sup>                              | 10 <sup>2</sup>   | 10 <sup>2</sup> 5 <sup>3</sup> |
| Ultramarine blue                              | 57455-37-5               | 15-20       | Not Est.  | Not Est.          | Not Est.                       |
| Silica-Crystalline<br>Quartz <sup>4</sup>     | 14808-60-7               | 0.1-1.0     | 10 <sup>2,5</sup> , 3.3 <sup>3,5</sup>                      | 0.05 <sup>3</sup> | 0.05 <sup>3</sup>              |

<sup>1</sup> TWA = Time-weighted average

<sup>2</sup> Total dust.

<sup>3</sup> Respirable dust.

<sup>4</sup> Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

<sup>5</sup> Using the OSHA quartz formula, this PEL was calculated assuming crystalline silica content of 1.0% in this ingredient.

**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:                                   | Blue               |
| Odor:                                    | Odorless.          |
| pH (at 10% solids):                      | 8.5-9.5.           |
| Boiling point/range:                     | No data available. |
| Melting point/range:                     | Decomposes         |
| 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 <sub>2</sub> O=1):   | 2.60-2.65.         |
| Viscosity:                               | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |

# SAFETY DATA SHEET

IRWIN Chalk – Blue

## 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

**Conditions to avoid:** Incompatible materials, moisture.

**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<sub>Lo</sub>: 300 µg/m<sup>3</sup>/ 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: LD<sub>50</sub>: 6,450 mg/kg.  
(Ultramarine blue) Rat: LD<sub>50</sub>: 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.

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 – Blue

## 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.

WHIMS Classification: D2A

## 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



# SAFETY DATA SHEET

IRWIN Chalk – Blue

Commission Regulation 1907/2006/EC (REACH) Annex II.

**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

|                                  |                          |
|----------------------------------|--------------------------|
| <b>IRWIN Chalk – Indigo Blue</b> | <b>December 23, 2016</b> |
|                                  | <b>Revision 2</b>        |

### 1. PRODUCT and COMPANY IDENTIFICATION

Commercial Product Name: IRWIN Chalk – Indigo Blue, Permanent Staining  
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). 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.    |
|--|-----------|------------|-----------|
| Ultramarine blue                         | 88-92     | 57455-37-5 | none      |
| Talc <sup>1</sup>                        | 8-12      | 14807-96-6 | 238-877-9 |
| Silica (crystalline quartz) <sup>1</sup> | 0.1 - 1   | 14808-60-7 | 238-878-4 |

<sup>1</sup> Talc may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

# SAFETY DATA SHEET

IRWIN Chalk – Indigo Blue, Permanent Staining

## 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:** Wash mouth out with plenty of water. If the victim is conscious and alert, give 2-4 cupfuls of milk or water. Do not induce vomiting unless directed to do so by medical personnel. 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.

**Explosion:** No information found.

**Specific hazards:** Not considered to be a significant fire risk, however; the containers may burn, releasing carbon monoxide, and carbon dioxide.

**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 – Indigo Blue, Permanent Staining

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

| Component                              | CAS No.    | % by weight | Exposure Limit 8-Hour TWA <sup>1</sup> (mg/m <sup>3</sup> ) |                    |                   |
|--|------------|-------------|---|--------------------|-------------------|
|  |            |             | OSHA PEL  | ACGIH TLV          | NIOSH REL         |
| Ultramarine blue                       | 57455-37-5 | 88-92       | Not Est.  | Not Est.           | Not Est.          |
| Talc <sup>4</sup>                      | 14807-96-6 | 8-12        | 10 <sup>2.5</sup> , 3.3 <sup>3,5</sup>                      | 2 <sup>3</sup>     | 2 <sup>3</sup>    |
| Silica-Crystalline Quartz <sup>4</sup> | 14808-60-7 | 0.1-1.0     | 0.05 <sup>3</sup>   | 0.025 <sup>3</sup> | 0.05 <sup>3</sup> |

<sup>1</sup> TWA = Time-weighted average

<sup>2</sup> Total dust.

<sup>3</sup> Respirable dust.

<sup>4</sup> Talc 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:                                   | Indigo blue        |
| Odor:                                    | Odorless.          |
| pH (at 10% solids):                      | No data available. |
| Boiling point/range:                     | No data available. |
| Melting point/range:                     | Decomposes.        |
| 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 <sub>2</sub> O=1):   | 2.3                |
| Viscosity:                               | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |

# SAFETY DATA SHEET

IRWIN Chalk – Indigo Blue, Permanent Staining

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal temperatures and pressures.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide, calcium oxide.

**Materials to avoid:** No known incompatibility with the normal range of industrial materials.

**Conditions to avoid:** No information.

**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:** No data reported.

**Inhalation:** (Silica, crystalline quartz) Human: LC<sub>Lo</sub>: 300 µg/m<sup>3</sup>/ intermittent exposure over a 10-year period produced pulmonary system effects.

**Skin contact:** (Talc) Human: 0.3mg administered intermittently for 3 days produced mild skin irritation.

**Eye contact:** No data reported.

**Ingestion:** (Ultramarine blue) Rat: LD<sub>50</sub>: 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: Possibly hazardous short term degradation products are not likely. However, long term degradation may arise. The products of degradation may be more toxic.

## 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 – Indigo Blue, Permanent Staining

## 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 – Indigo Blue, Permanent Staining

**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



# Safety Data Sheet

## 1. IDENTIFICATION

### Product Identifier

**Product Name** Lens Cleaning Liquid

### Other means of identification

**SDS #** PYR-005

**Product Numbers** GALSOL, LCB16, LCS10, LCS20, CRA001

### Recommended use of the chemical and restrictions on use

**Recommended Use** Eyeglass lens cleaner.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Pyramex Safety Products LLC  
281A Moore Lane  
Collierville, TN 38017

### Emergency Telephone Number

**Company Phone Number** 1-901-861-6100  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear or pale pink liquid

**Physical State** Liquid

**Odor** Mild citrus

### Classification

The information below is for the liquid in industrial quantities when used in an industrial setting. The solution as packed in a consumer quantity is considered a consumer good and when used as intended is unlikely to present a hazard

### Hazards Not Otherwise Classified (HNOC)

Causes mild skin irritation

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                   | CAS No   | Weight-% |
|---------------------------------|----------|----------|
| Ethylene Glycol Monobutyl Ether | 111-76-2 | 5-15     |

\*\*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

**Eye Contact** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Skin Contact** Wash with soap and water.



**Inhalation** Remove to fresh air.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects**

**Symptoms** Causes mild skin irritation.

**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 determined.

**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 skin, eyes or clothing.

**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** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. 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 Materials** None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

| Chemical Name                               | ACGIH TLV   | OSHA PEL   | NIOSH IDLH   |
|---|-------------|--|--|
| Ethylene Glycol Monobutyl Ether<br>111-76-2 | TWA: 20 ppm | TWA: 50 ppm<br>TWA: 240 mg/m <sup>3</sup><br>(vacated) TWA: 25 ppm<br>(vacated) TWA: 120 mg/m <sup>3</sup><br>(vacated) S*<br>S* | IDLH: 700 ppm<br>TWA: 5 ppm<br>TWA: 24 mg/m <sup>3</sup> |

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Avoid contact with eyes.

**Skin and Body Protection** Wear suitable protective clothing.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas.

**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**

|                       |                           |                       |                |
|-----------------------|---------------------------|-----------------------|----------------|
| <b>Physical State</b> | Liquid                    | <b>Odor</b>           | Mild citrus    |
| <b>Appearance</b>     | Clear or pale pink liquid | <b>Odor Threshold</b> | Not determined |
| <b>Color</b>          | Clear or pale pink        |                       |                |

| <b>Property</b>              | <b>Values</b>    | <b>Remarks • Method</b> |
|------------------------------|------------------|-------------------------|
| pH                           | 7                |                         |
| Melting Point/Freezing Point | Not determined   |                         |
| Boiling Point/Boiling Range  | 100 °C / 210 °F  |                         |
| Flash Point                  | Not determined   |                         |
| Evaporation Rate             | Not determined   |                         |
| Flammability (Solid, Gas)    | Not determined   |                         |
| Upper Flammability Limits    | Not determined   |                         |
| Lower Flammability Limit     | Not determined   |                         |
| Vapor Pressure               | Not determined   |                         |
| Vapor Density                | 1.3              |                         |
| Specific Gravity             | 1.010            |                         |
| Water Solubility             | Soluble in water |                         |
| Solubility in other solvents | Not determined   |                         |
| Partition Coefficient        | Not determined   |                         |
| Auto-ignition Temperature    | Not determined   |                         |

|                                  |                |
|----------------------------------|----------------|
| <b>Decomposition Temperature</b> | Not determined |
| <b>Kinematic Viscosity</b>       | Not determined |
| <b>Dynamic Viscosity</b>         | Not determined |
| <b>Explosive Properties</b>      | Not determined |
| <b>Oxidizing Properties</b>      | Not determined |
| <b>VOC Content</b>               | 5.09           |

**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**

Keep out of reach of children.

**Incompatible Materials**

None known based on information supplied.

**Hazardous Decomposition Products**

None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

- Eye Contact**                                      Avoid contact with eyes.
- Skin Contact**                                    Causes mild skin irritation.
- Inhalation**                                        Do not inhale.
- Ingestion**                                        Do not ingest.

**Component Information**

| <b>Chemical Name</b>                        | <b>Oral LD50</b>     | <b>Dermal LD50</b>                          | <b>Inhalation LC50</b>                        |
|---|----------------------|---|---|
| Ethylene Glycol Monobutyl Ether<br>111-76-2 | = 470 mg/kg ( Rat )  | = 2270 mg/kg ( Rat ) = 220 mg/kg ( Rabbit ) | = 2.21 mg/L ( Rat ) 4 h = 450 ppm ( Rat ) 4 h |
| Sodium Bicarbonate<br>144-55-8              | = 4220 mg/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 |
|---|-------|---------|-----|------|
| Ethylene Glycol Monobutyl Ether<br>111-76-2 | A3    | Group 3 |     |      |

**Legend**

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

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   |
|---|---|---|----------------------------|---|
| Ethylene Glycol Monobutyl Ether<br>111-76-2 |   | 1490: 96 h Lepomis macrochirus mg/L LC50 static<br>2950: 96 h Lepomis macrochirus mg/L LC50 |                            | 1698 - 1940: 24 h Daphnia magna mg/L EC50<br>1000: 48 h Daphnia magna mg/L EC50 |
| Sodium Bicarbonate<br>144-55-8              | 650: 120 h Nitzschia linearis mg/L EC50 | 8250 - 9000: 96 h Lepomis macrochirus mg/L LC50 static                                      |                            | 2350: 48 h Daphnia magna mg/L EC50  |

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

| Chemical Name                               | Partition Coefficient |
|---|-----------------------|
| Ethylene Glycol Monobutyl Ether<br>111-76-2 | 0.81                  |

**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**

**TSCA** Complies  
**DSL** Does not comply  
**NDSL** Does not comply  
**EINECS** Does not comply  
**ELINCS** Does not comply  
**ENCS** Does not comply  
**IECSC** Does not comply  
**KECL** Does not comply  
**PICCS** Does not comply  
**AICS** Does not comply

**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**

| Chemical Name                              | CAS No   | Weight-% | SARA 313 - Threshold Values % |
|--|----------|----------|-------------------------------|
| Ethylene Glycol Monobutyl Ether - 111-76-2 | 111-76-2 | 5-15     | 1.0                           |

**US State Regulations**

**U.S. State Right-to-Know Regulations**

| Chemical Name                               | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Ethylene Glycol Monobutyl Ether<br>111-76-2 | X          | X             | X            |

**16. OTHER INFORMATION**

|             |                       |                     |                         |                            |
|-------------|-----------------------|---------------------|-------------------------|----------------------------|
| <b>NEPA</b> | <b>Health Hazards</b> | <b>Flammability</b> | <b>Instability</b>      | <b>Special Hazards</b>     |
|             | 1                     | 0                   | 0                       | Not determined             |
| <b>HMIS</b> | <b>Health Hazards</b> | <b>Flammability</b> | <b>Physical Hazards</b> | <b>Personal Protection</b> |
|             | 1                     | 0                   | 0                       | Not determined             |

Issue Date: 12/6/2007  
 Revision Date: 02/20/2015  
 Revision Note: New format

**Disclaimer**

The information provided in this Safety Data Sheet was obtained from sources which we believe are reliable. However, the information is provided without warranty, expressed or implied, regarding the accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, Pyramex Safety Products, LLC and its Divisions and Subsidiaries, Officers and Employees 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.

**End of Safety Data Sheet**

Product Name: MOBILGREASE XHP 222  
Revision Date: 25 Jun 2021  
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## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

**Product Name:** MOBILGREASE XHP 222  
**Product Description:** Base Oil and Additives  
**Product Code:** 2015A0202530, 530436-00, 97E898  
**Intended Use:** Grease

#### COMPANY IDENTIFICATION

**Supplier:** EXXON MOBIL CORPORATION  
22777 Springwoods Village Parkway  
Spring, TX 77389 USA

**24 Hour Health Emergency** 609-737-4411  
**Transportation Emergency Phone** 800-424-9300 or 703-527-3887 CHEMTREC  
**Product Technical Information** 800-662-4525  
**MSDS Internet Address** [www.exxon.com](http://www.exxon.com), [www.mobil.com](http://www.mobil.com)

### SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

#### Other hazard information:

**HAZARD NOT OTHERWISE CLASSIFIED (HNOC):** None as defined under 29 CFR 1910.1200.

#### PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

#### HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

#### ENVIRONMENTAL HAZARDS

No significant hazards.

|                        |           |                 |               |
|------------------------|-----------|-----------------|---------------|
| <b>NFPA Hazard ID:</b> | Health: 0 | Flammability: 1 | Reactivity: 0 |
| <b>HMIS Hazard ID:</b> | Health: 0 | Flammability: 1 | Reactivity: 0 |

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Product Name: MOBILGREASE XHP 222

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|                  |   |
|------------------|---|
| <b>SECTION 3</b> | <b>COMPOSITION / INFORMATION ON INGREDIENTS</b> |
|------------------|---|

This material is defined as a mixture.

**Hazardous Substance(s) or Complex Substance(s) required for disclosure**

| Name  | CAS#       | Concentration* | GHS Hazard Codes           |
|---|------------|----------------|----------------------------|
| BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE | 68411-46-1 | 1 - < 5%       | H316, H402, H412           |
| NAPHTHENIC ACIDS, ZINC SALTS  | 12001-85-3 | 0.1 - < 1%     | H317, H319(2A), H401, H411 |
| ZINC DIALKYL DITHIOPHOSPHATE  | 68457-79-4 | 1 - < 2.5%     | H315, H318, H401, H411     |

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

|                  |                           |
|------------------|---------------------------|
| <b>SECTION 4</b> | <b>FIRST AID MEASURES</b> |
|------------------|---------------------------|

**INHALATION**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**SKIN CONTACT**

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

**EYE CONTACT**

Flush thoroughly with water. If irritation occurs, get medical assistance.

**INGESTION**

First aid is normally not required. Seek medical attention if discomfort occurs.

|                  |                               |
|------------------|-------------------------------|
| <b>SECTION 5</b> | <b>FIRE FIGHTING MEASURES</b> |
|------------------|-------------------------------|

**EXTINGUISHING MEDIA**

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight Streams of Water

**FIRE FIGHTING**

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.



Product Name: MOBILGREASE XHP 222

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**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulfur oxides

#### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >200°C (392°F) [EST. FOR OIL, ASTM D-92 (COC)]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** N/D

### SECTION 6

### ACCIDENTAL RELEASE MEASURES

#### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

#### PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

#### SPILL MANAGEMENT

**Land Spill:** Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

#### ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

### SECTION 7

### HANDLING AND STORAGE

#### HANDLING

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Prevent small spills and leakage to avoid slip hazard.

**Static Accumulator:** This material is not a static accumulator.

## STORAGE

Do not store in open or unlabelled containers.

|                  |  |
|------------------|--|
| <b>SECTION 8</b> | <b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b> |
|------------------|--|

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

## ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

## PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

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**Specific Hygiene Measures:** 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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

## ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

### GENERAL INFORMATION

**Physical State:** Solid

**Form:** Semi-fluid

**Color:** Dark Blue

**Odor:** Characteristic

**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.88

**Flammability (Solid, Gas):** N/A

**Flash Point [Method]:** >200°C (392°F) [EST. FOR OIL, ASTM D-92 (COC)]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** N/D

**Boiling Point / Range:** > 316°C (600°F)

**Decomposition Temperature:** N/D

**Vapor Density (Air = 1):** N/D

**Vapor Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C

**Evaporation Rate (n-butyl acetate = 1):** N/D

**pH:** N/A

**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5

**Solubility in Water:** Negligible

**Viscosity:** 220 cSt (220 mm<sup>2</sup>/sec) at 40 °C

**Oxidizing Properties:** See Hazards Identification Section.

### OTHER INFORMATION

**Freezing Point:** N/D

**Melting Point:** N/D

**DMSO Extract (mineral oil only), IP-346:** < 3 %wt

NOTE: Most physical properties above are for the oil component in the material.

## SECTION 10 STABILITY AND REACTIVITY

**REACTIVITY:** See sub-sections below.

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**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**MATERIALS TO AVOID:** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

|                   |                                  |
|-------------------|----------------------------------|
| <b>SECTION 11</b> | <b>TOXICOLOGICAL INFORMATION</b> |
|-------------------|----------------------------------|

**INFORMATION ON TOXICOLOGICAL EFFECTS**

| <b>Hazard Class</b>  | <b>Conclusion / Remarks</b>  |
|--|--|
| <b>Inhalation</b>  |  |
| Acute Toxicity: No end point data for material.                | Minimally Toxic. Based on assessment of the components.  |
| Irritation: No end point data for material.                    | Negligible hazard at ambient/normal handling temperatures.   |
| <b>Ingestion</b>   |  |
| Acute Toxicity: No end point data for material.                | Minimally Toxic. Based on assessment of the components.  |
| <b>Skin</b>  |  |
| Acute Toxicity: No end point data for material.                | Minimally Toxic. Based on assessment of the components.  |
| Skin Corrosion/Irritation: No end point data for material.     | Negligible irritation to skin at ambient temperatures. Based on assessment of the components.                  |
| <b>Eye</b>   |  |
| Serious Eye Damage/Irritation: No end point data for material. | May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.                       |
| <b>Sensitization</b>   |  |
| Respiratory Sensitization: No end point data for material.     | Not expected to be a respiratory sensitizer.   |
| Skin Sensitization: No end point data for material.            | Not expected to be a skin sensitizer. Based on assessment of the components.                                   |
| <b>Aspiration:</b> Data available.                             | Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.                 |
| <b>Germ Cell Mutagenicity:</b> No end point data for material. | Not expected to be a germ cell mutagen. Based on assessment of the components.                                 |
| <b>Carcinogenicity:</b> No end point data for material.        | Not expected to cause cancer. Based on assessment of the components.   |
| <b>Reproductive Toxicity:</b> No end point data for material.  | Not expected to be a reproductive toxicant. Based on assessment of the components.                             |
| <b>Lactation:</b> No end point data for material.              | Not expected to cause harm to breast-fed children.   |
| <b>Specific Target Organ Toxicity (STOT)</b>                   |  |
| Single Exposure: No end point data for material.               | Not expected to cause organ damage from a single exposure.   |
| Repeated Exposure: No end point data for material.             | Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components. |

**OTHER INFORMATION**

For the product itself:

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Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components, this formulation, or similar formulations.

**Contains:**

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

C.I. Solvent blue: Positive in the Ames and Mouse Lymphoma mutagenicity assay.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

## SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

**ECOTOXICITY**

Material -- Not expected to be harmful to aquatic organisms.

**MOBILITY**

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

**PERSISTENCE AND DEGRADABILITY**

**Biodegradation:**

Base oil component -- Expected to be inherently biodegradable

**BIOACCUMULATION POTENTIAL**

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

## SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

**DISPOSAL RECOMMENDATIONS**

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

**REGULATORY DISPOSAL INFORMATION**

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with

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contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

|                   |                              |
|-------------------|------------------------------|
| <b>SECTION 14</b> | <b>TRANSPORT INFORMATION</b> |
|-------------------|------------------------------|

**LAND (DOT):** Not Regulated for Land Transport

**LAND (TDG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

|                   |                               |
|-------------------|-------------------------------|
| <b>SECTION 15</b> | <b>REGULATORY INFORMATION</b> |
|-------------------|-------------------------------|

**OSHA HAZARD COMMUNICATION STANDARD:** This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

**Listed or exempt from listing/notification on the following chemical inventories:** AIIIC, DSL, ENCS, IECSC, KECI, PICCS, TCSI, TSCA

**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

**SARA (311/312) REPORTABLE GHS HAZARD CLASSES:** None.

**SARA (313) TOXIC RELEASE INVENTORY:**

| Chemical Name                | CAS Number | Typical Value |
|------------------------------|------------|---------------|
| ZINC DIALKYL DITHIOPHOSPHATE | 68457-79-4 | 1 - < 2.5%    |

The following ingredients are cited on the lists below:

| Chemical Name          | CAS Number | List Citations |
|------------------------|------------|----------------|
| NAPHTHENIC ACIDS, ZINC | 12001-85-3 | 15             |

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|   |            |                    |
|---|------------|--------------------|
| SALTS   |            |                    |
| SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE | 64742-54-7 | 17, 18, 19         |
| SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE | 64742-54-7 | 19                 |
| ZINC DIALKYL DITHIOPHOSPHATE                      | 68457-79-4 | 13, 15, 17, 18, 19 |
| ZINC NEODECANOATE                                 | 27253-29-8 | 15                 |

--REGULATORY LISTS SEARCHED--

- |               |                  |                   |             |
|---------------|------------------|-------------------|-------------|
| 1 = ACGIH ALL | 6 = TSCA 5a2     | 11 = CA P65 REPRO | 16 = MN RTK |
| 2 = ACGIH A1  | 7 = TSCA 5e      | 12 = CA RTK       | 17 = NJ RTK |
| 3 = ACGIH A2  | 8 = TSCA 6       | 13 = IL RTK       | 18 = PA RTK |
| 4 = OSHA Z    | 9 = TSCA 12b     | 14 = LA RTK       | 19 = RI RTK |
| 5 = TSCA 4    | 10 = CA P65 CARC | 15 = MI 293       |             |

Code key: CARC=Carcinogen; REPRO=Reproductive

**SECTION 16**

**OTHER INFORMATION**

N/D = Not determined, N/A = Not applicable

**KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):**

- H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
- H316: Causes mild skin irritation; Skin Corr/Irritation, Cat 3
- H317: May cause allergic skin reaction; Skin Sensitization, Cat 1
- H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1
- H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A
- H401: Toxic to aquatic life; Acute Env Tox, Cat 2
- H402: Harmful to aquatic life; Acute Env Tox, Cat 3
- H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2
- H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

- Section 09: Flash Point C(F) information was modified.
- Section 09: Viscosity information was deleted.
- Section 09: Viscosity information was modified.
- Section 11: Chronic Tox - Component information was modified.
- Section 11: Other Health Effects information was added.
- Section 15: National Chemical Inventory Listing information was modified.
- Section 16: HCode Key information was modified.

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer

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repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

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Internal Use Only

MHC: 0B, 0B, 0, 0, 0, 0

PPEC: A

DGN: 2006153XUS (1027429)

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# SAFETY DATA SHEET

**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT**

**Product Name:** MOBILGREASE XHP 222  
**Product Description:** Base Oil and Additives  
**Product Code:** 2015A0202530, 530436-85  
**Intended Use:** Grease

**COMPANY IDENTIFICATION**

**Supplier:** East Coast Lubes Pty Ltd (Queensland and Northern Territory)  
 A.B.N. 37 117 203 611  
 Cnr North and Mort Streets  
 Toowoomba, Queensland 4350 Australia

**24 Hour Emergency Telephone** 1300 131 001  
**Supplier General Contact** 1800 069 019

**Supplier:** Southern Cross Lubes (Victoria and Tasmania, New South Wales and Australian Capital Territory)  
 58-66 Ajax Road  
 Altona, Victoria 3018, Australia

**24 Hour Emergency Telephone** 1300 131 001  
**Product Technical Information**  
**Supplier General Contact** 1300 466 245  
 1300 552 861

**Supplier:** Perkal Pty Ltd Trading as Statewide Oil (Western Australia)  
 A.B.N. 43 009 283 363  
 14 Beete Street  
 Welshpool, Western Australia 6106 Australia

**24 Hour Emergency Telephone** (8:00am to 4:30pm Mon to Fri) 1300 919 904  
**Product Technical Information**  
**Supplier General Contact** (08) 9350 6777  
 (08) 9350 6777

**Supplier:** Perkal Pty Ltd Trading as Statewide Oil (South Australia)  
 A.B.N. 43 009 283 363  
 6-10 Streiff Rd  
 Wingfield, South Australia 5013 Australia

**24 Hour Emergency Telephone** (8:00am to 4:30pm Mon to Fri) 1300 919 904  
**Product Technical Information**  
**Supplier General Contact** (08) 8359 8995  
 (08) 8359 8995

**SECTION 2 HAZARDS IDENTIFICATION**

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This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

**Other hazard information:**

**Physical / Chemical Hazards:**

No significant hazards.

**Health Hazards:**

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

**Environmental Hazards:**

No significant hazards.

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

|                  |   |
|------------------|---|
| <b>SECTION 3</b> | <b>COMPOSITION / INFORMATION ON INGREDIENTS</b> |
|------------------|---|

This material is defined as a mixture.

**Reportable Hazardous Substance(s) or Complex Substance(s)**

| Name  | CAS#       | Concentration* | GHS Hazard Codes       |
|---|------------|----------------|------------------------|
| BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE | 68411-46-1 | 1 - < 5%       | H402, H412             |
| ZINC DIALKYL DITHIOPHOSPHATE  | 68457-79-4 | 1 - < 2.5%     | H315, H318, H401, H411 |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Other ingredients determined not to be hazardous up to 100%.

|                  |                           |
|------------------|---------------------------|
| <b>SECTION 4</b> | <b>FIRST AID MEASURES</b> |
|------------------|---------------------------|

**INHALATION**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**SKIN CONTACT**

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

**EYE CONTACT**

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Flush thoroughly with water. If irritation occurs, get medical assistance.

## INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

## NOTE TO PHYSICIAN

None

## SECTION 5 FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight streams of water

### FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >204°C (399°F) [EST. FOR OIL, ASTM D-92 (COC)]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** N/D

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal

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antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

## SPILL MANAGEMENT

**Land Spill:** Allow spilled material to solidify and shovel it up into a suitable container for recycle or disposal. Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

## ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

## SECTION 7

## HANDLING AND STORAGE

### HANDLING

Prevent small spills and leakage to avoid slip hazard.

**Static Accumulator:** This material is not a static accumulator.

### STORAGE

Do not store in open or unlabelled containers.

## SECTION 8

## EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

### Biological limits

No biological limits allocated.

### ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

### PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use

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with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Nitrile, Viton

No protection is ordinarily required under normal conditions of use.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** 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. Discard contaminated clothing and footwear that cannot be cleaned. Practise good housekeeping.

## ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

|                  |   |
|------------------|---|
| <b>SECTION 9</b> | <b>PHYSICAL AND CHEMICAL PROPERTIES</b> |
|------------------|---|

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

## GENERAL INFORMATION

**Physical State:** Solid  
**Form:** Semi-fluid  
**Colour:** Dark Blue  
**Odour:** Characteristic  
**Odour Threshold:** N/D

## IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Product Name: MOBILGREASE XHP 222  
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**Relative Density (at 15 °C):** 0.91  
**Flammability (Solid, Gas):** N/A  
**Flash Point [Method]:** >204°C (399°F) [EST. FOR OIL, ASTM D-92 (COC)]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** N/D  
**Boiling Point / Range:** > 316°C (600°F)  
**Decomposition Temperature:** N/D  
**Vapour Density (Air = 1):** N/D  
**Vapour Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/A  
**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5  
**Solubility in Water:** Negligible  
**Viscosity:** 220 cSt (220 mm<sup>2</sup>/sec) at 40 °C | >16 cSt (16 mm<sup>2</sup>/sec) at 100°C  
**Oxidizing Properties:** See Hazards Identification Section.

**OTHER INFORMATION**

**Freezing Point:** N/D  
**Melting Point:** >260°C (500°F)  
**DMSO Extract (mineral oil only), IP-346:** < 3 %wt

NOTE: Most physical properties above are for the oil component in the material.

**SECTION 10 STABILITY AND REACTIVITY**

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**INCOMPATIBLE MATERIALS:** Strong oxidisers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**INFORMATION ON TOXICOLOGICAL EFFECTS**

| Hazard Class                                    | Conclusion / Remarks                                       |
|---|--|
| <b>Inhalation</b>                               |  |
| Acute Toxicity: No end point data for material. | Minimally Toxic. Based on assessment of the components.    |
| Irritation: No end point data for material.     | Negligible hazard at ambient/normal handling temperatures. |
| <b>Ingestion</b>                                |  |
| Acute Toxicity: No end point data for material. | Minimally Toxic. Based on assessment of the components.    |
| <b>Skin</b>                                     |  |
| Acute Toxicity: No end point data for material. | Minimally Toxic. Based on assessment of the components.    |

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|  |  |
|--|--|
| Skin Corrosion/Irritation: No end point data for material.     | Negligible irritation to skin at ambient temperatures. Based on assessment of the components.                  |
| <b>Eye</b>   |  |
| Serious Eye Damage/Irritation: No end point data for material. | May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.                       |
| <b>Sensitisation</b>   |  |
| Respiratory Sensitization: No end point data for material.     | Not expected to be a respiratory sensitizer.   |
| Skin Sensitization: No end point data for material.            | Not expected to be a skin sensitizer. Based on assessment of the components.                                   |
| <b>Aspiration:</b> Data available.                             | Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.                 |
| <b>Germ Cell Mutagenicity:</b> No end point data for material. | Not expected to be a germ cell mutagen. Based on assessment of the components.                                 |
| <b>Carcinogenicity:</b> No end point data for material.        | Not expected to cause cancer. Based on assessment of the components.   |
| <b>Reproductive Toxicity:</b> No end point data for material.  | Not expected to be a reproductive toxicant. Based on assessment of the components.                             |
| <b>Lactation:</b> No end point data for material.              | Not expected to cause harm to breast-fed children.   |
| <b>Specific Target Organ Toxicity (STOT)</b>                   |  |
| Single Exposure: No end point data for material.               | Not expected to cause organ damage from a single exposure.   |
| Repeated Exposure: No end point data for material.             | Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components. |

## OTHER INFORMATION

### Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals. C.I. Solvent blue: Positive in the Ames and Mouse Lymphoma mutagenicity assay. Middle distillates: Carcinogenic in animal tests. Lifetime skin painting tests produced tumours, but the mechanism is due to repeated cycles of skin damage and restorative hyperplasia. This mechanism is considered unlikely in humans where such prolonged skin irritation would not be tolerated. Did not cause mutations in-vitro. Inhalation of vapours did not result in reproductive or developmental effects in laboratory animals. Inhalation of high concentrations in animals resulted in respiratory tract irritation, lung changes and some reduction in lung function. Non-sensitising in test animals.

### IARC Classification:

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = IARC 1

2 = IARC 2A

3 = IARC 2B

## SECTION 12

## ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

Product Name: MOBILGREASE XHP 222

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#### ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

#### MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land.  
Expected to partition to sediment and wastewater solids.

#### PERSISTENCE AND DEGRADABILITY

##### Biodegradation:

Base oil component -- Expected to be inherently biodegradable

#### BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

### SECTION 13

### DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

#### DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

### SECTION 14

### TRANSPORT INFORMATION

**LAND (ADG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No



Product Name: MOBILGREASE XHP 222  
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**AIR (IATA):** Not Regulated for Air Transport

|                   |                               |
|-------------------|-------------------------------|
| <b>SECTION 15</b> | <b>REGULATORY INFORMATION</b> |
|-------------------|-------------------------------|

This material is not considered hazardous according to Australia Model Work Health and Safety Regulations.

Product is not regulated according to Australian Dangerous Goods Code.

No Poison Schedule number allocated by the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act.

### REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

**Listed or exempt from listing/notification on the following chemical inventories (May contain substance(s) subject to notification to the EPA Active TSCA inventory prior to import to USA):** AICS, DSL, ENCS, IECSC, ISHL, KECI, PICCS, TCSI, TSCA

|                   |                          |
|-------------------|--------------------------|
| <b>SECTION 16</b> | <b>OTHER INFORMATION</b> |
|-------------------|--------------------------|

#### KEY TO ABBREVIATIONS AND ACRONYMS:

N/D = Not determined, N/A = Not applicable, STEL = Short-Term Exposure Limit, TWA = Time-Weighted Average

#### KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H315: Causes skin irritation; Skin Corr/Irritation, Cat 2  
H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1  
H401: Toxic to aquatic life; Acute Env Tox, Cat 2  
H402: Harmful to aquatic life; Acute Env Tox, Cat 3  
H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2  
H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

#### THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Section 15: National Chemical Inventory Listing information was modified.

-----  
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DGN: 2006153DAU (550268)

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Prepared by: Exxon Mobil Corporation  
EMBSI, Clinton NJ USA  
Contact Point: See Section 1 for Local Contact number

**End of (M)SDS**

# SAFETY DATA SHEET

---

## Section 1. IDENTIFICATION

---

### Product Identifier

Product Name Nickel Thred Gard.

### Other means of Identification

Product Code NG04, NG08, NG16.

Recommended Use Anti Seize Compound.

Recommended Restrictions None Known.

### Manufacturer

Company Name Federal Process Corporation  
Address 4520 Richmond Road  
Cleveland OH 44128  
Telephone 1-800-846-7325

Emergency Telephone Number: Call Chemtrec at 1-800-424-9300

---

## Section 2. HAZARDS IDENTIFICATION

---

PHYSICAL STATE: Grease Like

### Classification:

|                                   |            |
|-----------------------------------|------------|
| Serious eye damage/eye irritation | Category 2 |
| Skin sensitization                | Category 1 |
|                                   |            |

### Signal Word:

Warning



### Hazard Statements:

H319 – Causes serious eye irritation.

H317 – May cause an allergic skin reaction

Precautionary Statements:

Prevention: Not expected to be present a hazard during normal use.

Response: 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.

P332 + P313 – If skin irritation or rash occurs: Get medical advice/attention.

Disposal: P501 - Dispose of contents/container to an approved waste disposal plant.

Other Hazards: Toxic to aquatic life with long lasting effects.

Unknown Acute Toxicity: 2% of the mixture consists of ingredient(s) of unknown toxicity.

---

### Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

---

| Chemical Name | CAS Number | Weight % |
|---------------|------------|----------|
| Petroleum oil | 64741-96-4 | 60-80    |
| Nickel        | 7440-02-0  | 5-10     |

---

### Section 4. FIRST AID MEASURES

---

First Aid Measures:

Eye Contact Rinse thoroughly with plenty of water, for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Skin Contact If skin irritation occurs, rinse affected area with water. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation Remove to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

Ingestion Do NOT induce vomiting Get medical attention immediately. Rinse mouth with water. Never give anything by mouth to an unconscious individual.

Most Important Symptoms and effects:

Symptoms Direct contact with eyes may cause temporary irritation.  
Do NOT ingest.

---

## Section 5. FIRE-FIGHTING MEASURES

---

Suitable Extinguishing Media: Use foam, dry chemical, carbon dioxide or water fog.

Unsuitable Extinguishing Media: Avoid solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical:

Carbon oxides expected to be the primary hazardous combustion product.

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus and other protective clothing (approved or equivalent) and full protective gear.

---

## Section 6. ACCIDENTAL RELEASE MEASURES

---

Personal Precautions, Protective Equipment and Emergency Procedures:

Personal Precautions: Use personal protective equipment as required. Keep unnecessary personnel away.

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: Keep in suitable, closed containers for disposal.

---

## Section 7. HANDLING AND STORAGE

---

Precautions for Safe Handling:

Advice on Safe Handling: Avoid breathing vapors or mists. Contaminated work-clothing should not be allowed out of the workplace.

Conditions for Safe Storage, including

Any Incompatibilities:

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.  
Do not store near heat, sparks, or open flames.  
KEEP OUT OF REACH OF CHILDREN.

Incompatible Materials: None known based on information supplied.

---

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

Exposure Guidelines:

| Chemical Name                     | ACGIH TWA           | ACGIH STEL | OSHA TWA              |
|-----------------------------------|---------------------|------------|-----------------------|
| Petroleum oil<br>(CAS 64741-96-4) | 5 mg/m <sup>3</sup> | N/A        | 5 mg/m <sup>3</sup>   |
| Nickel<br>(CAS 7440-02-0)         | 1 mg/m <sup>3</sup> | N/A        | 0.1 mg/m <sup>3</sup> |

Appropriate Engineering Controls:

Engineering Controls: Apply technical measures to comply with the occupational exposure limits.

Individual Protection Measures, such as  
Personal Protective Equipment:

Eye/Face Protection: Avoid contact with eyes.

Skin and Body Protection: No protective equipment is needed under normal use conditions.

Respiratory Protection: Ensure adequate ventilation, especially in confined areas. If confined in poorly ventilated areas use NIOSH/MSHA

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Wash exposed areas thoroughly before eating, drinking, smoking or leaving work area. Launder contaminated clothing before reusing.

---

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

---

Information on Basic Physical and Chemical Properties

|                 |               |                 |                   |
|-----------------|---------------|-----------------|-------------------|
| Physical State: | Grease like.  | Odor:           | Mild/grease like. |
| Appearance:     | Viscous..     | Odor Threshold: | Not available.    |
| Color:          | Grey metallic |                 |                   |

| <u>Property</u> | <u>Values</u> |
|-----------------|---------------|
| pH              | N/A           |

|  |                           |
|--|---------------------------|
| Melting Point/Freezing Point               | Not determined.           |
| Boiling Point/Boiling Range                | Not determined.           |
| Flash Point                                | >450F (>232C) Closed Cup. |
| Evaporation Rate                           | Not determined.           |
| Flammability (Solid, Gas)                  | n/a-liquid                |
| Upper Flammability Limit                   | Not determined.           |
| Lower Flammability Limit                   | Not determined.           |
| Vapor Pressure                             | Not determined.           |
| Vapor Density                              | Not determined.           |
| Specific Gravity                           | Not determined.           |
| Water Solubility                           | None.                     |
| Solubility in other Solvents               | Not determined.           |
| Partition Coefficient<br>(n-octanol/water) | Not determined.           |
| Auto-ignition Temperature                  | Not determined.           |
| Decomposition Temperature                  | Not determined.           |
| Kinematic Viscosity                        | Not determined.           |
| Explosive Properties                       | Not determined.           |
| Oxidizing Properties                       | Not determined.           |

---

## Section 10. STABILITY AND REACTIVITY

---

|  |  |
|--|--|
| <u>Reactivity:</u>                         | Not reactive under normal conditions.        |
| <u>Chemical Stability:</u>                 | Stable under recommended storage conditions. |
| <u>Possibility of Hazardous Reactions:</u> | None under normal processing.                |
| <u>Conditions to Avoid:</u>                | Keep out of reach of children.               |
| <u>Incompatible Materials:</u>             | None known.                                  |
| <u>Hazardous Decomposition Products:</u>   | Oxides of carbon.                            |

---

## Section 11. TOXICOLOGICAL INFORMATION

---

Information on Likely Routes of Exposure:

Eye Contact: Causes serious eye irritation.

Skin Contact: May cause an allergic skin reaction.

Inhalation: Avoid breathing vapors or mists.

Ingestion: Do not taste or swallow.

Component Information:

| Chemical Name                     | Oral LD50    | Dermal LD50 | Inhalation LC50 |
|-----------------------------------|--------------|-------------|-----------------|
| Petroleum oil<br>(CAS 64741-96-4) | N/A          | N/A         | N/A             |
| Nickel<br>(CAS 7440-02-0)         | 5 g/kg (Rat) | NO DATA     | NO DATA         |

Information on physical, chemical and toxicological effects:

Symptoms: Please section 4 of this SDS for symptoms.

Delayed and Immediate Effects as Well as Chronic Effects From Short and Long Term Exposure:

Sensitization: May cause an allergic skin reaction.

Carcinogenicity: Nickel has been reported by NTP, OSHA and IARC as a possible carcinogen..

| Chemical Name                     | ACGIH           | IARC    | NTP     | OSHA PEL |
|-----------------------------------|-----------------|---------|---------|----------|
| Petroleum oil<br>(CAS 64741-96-4) | No Data         | No Data | No Data | No Data  |
| Nickel<br>(CAS740-02-0)           | 1 mg/m3 as dust | No Data | No Data | 1 mg/m3  |
|                                   |                 |         |         |          |

Legend

IARC (International Agency for Research on Cancer).

Group3 IARC components are "not classifiable as human carcinogens".

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

X - Present

Numerical Measures of Toxicity:

Not Determined.

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## Section 12. ECOLOGICAL INFORMATION

---



Ecotoxicity:

Toxic to aquatic life with lasting effects.

| Chemical Name                 | Algae/aquatic plants | Fish | Toxicity to Microorganisms | Crustacea |
|-------------------------------|----------------------|------|----------------------------|-----------|
| Petroleum oil<br>(64741-96-4) | N/D                  | N/D  | N/D                        | N/A       |
| Nickel<br>(7440-02-0)         | N/D                  | N/D  | N/D                        | N/D       |
|                               |                      |      |                            |           |

Persistence/Degradability: Not determined.

Bioaccumulation: Not determined.

Mobility: Not determined.

Other Adverse Effects: Not determined.

Do not allow this compound to enter water-ways or sewers.

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### Section 13. DISPOSAL CONSIDERATIONS

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Waste Treatment Method:

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.

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### Section 14. TRANSPORT INFORMATION

---

DOT: Not Regulated

PROPER SHIPPING NAME: N/A.

IDENTIFICATION NUMBER: N/A

IATA: Not regulated

IMDG: Not regulated.

---

## Section 15. REGULATORY INFORMATION

---

|                                       |                 |
|---------------------------------------|-----------------|
| <u>International Inventories:</u>     | Not determined. |
| <u>U.S. Federal Regulations:</u>      | Not determined. |
| Petroleum oil<br><u>SARA 313:</u>     | No.             |
| Copper flakes<br>SARA 313             | Yes             |
| TSCA Inventory:<br>CERCLA RQ          | Yes<br>100 lbs. |
| <u>U.S Right-to-Know Regulations:</u> | Not determined. |

---

## Section 16. OTHER INFORMATION

---

|       |                     |                   |                  |                                   |
|-------|---------------------|-------------------|------------------|-----------------------------------|
| NFPA: | Health Hazards<br>1 | Flammability<br>1 | Instability<br>0 | Special Hazards<br>Not determined |
| HMIS  | Health Hazards<br>1 | Flammability<br>1 | Instability<br>0 | Special Hazards<br>Not determined |

Issue Date: 1<sup>st</sup> March 2014

Revision Date: 23<sup>rd</sup> March 2018

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: December 26, 2014      Revision Date: January 08 2018      Revision Number: 1

## 1. Identification of the Substance/Preparation and the Company Undertaking

### GHS Product Identifier

**Product Name**                      Nuclear High Purity Marker -Yellow

### Other Means of Identification

**Part Number**                      78005

**Color**                                      Yellow

**Formula Code**                      Solvent Based marker

**Temperature Range**                -20 to 150°F

**Synonyms**                              none

### Recommended use of the chemical and restrictions on use

**Recommended Use**                Marker

**Uses Advised Against**            No information available

### Supplier's Details

#### **Supplier Address**

SKM Industries Inc.  
1012 Underwood Road  
Olyphant, Pa 18447  
Telephone: 570-383-3062

### Emergency Telephone Number

Chemtrec                      US & Canada 800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous according to the OSHA Hazard Communications Standard 2012 (29 CFR 1910.1200)

Contains Trimethyl benzene and Xylene:

Flammable Liquid Category 3

Skin Irritation Category 2

Eye Irritation category 2A

Aquatic Toxicity category 2

### GHS Label Elements, including precautionary statements

#### Emergency Overview

**Signal Word** – Danger

**Hazard Statements** –

Skin irritation  
Eye irritation  
Respiratory irritation  
May be harmful if swallowed  
Flammable liquid and vapour  
Toxic to aquatic life



**Appearance** – Opaque, varies white or colored  
**Physical state**- liquid  
**Odor** – Petroleum Odor

### **Precautionary Statements**

#### **Prevention**

Do not handle until all safety precautions have been read and understood  
Keep container tightly closed  
Avoid breathing dust/vapors/fumes  
Wash face and hands and any exposed skin thoroughly after handling  
Wear protective gloves/clothing/eye protection/face protection  
Use personal protection as required  
Keep away from heat, sparks, open flame  
Use in a well-ventilated area  
Avoid release to the environment

#### **General Advice**

If exposed or concerned: get medical attention/advice

ACUTE HAZARD: At high concentration, dizziness and unconsciousness may occur.

CAUTION: Contains heptane. Harmful or fatal if swallowed. Direct contact may cause skin or eye irritation.

KEEP OUT OF REACH OF CHILDREN.

#### **Eyes**

Rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing. If irritation persists seek medical attention/advice.

#### **Skin**

Remove contaminated clothing. Rinse skin with water/shower. If irritation persists seek medical attention/advice.

#### **Inhalation**

Remove patient to fresh air and keep at rest in a comfortable position for breathing. Seek medical attention immediately. Deliberate concentration and inhalation can be harmful or fatal.

#### **Ingestion**

If accidentally swallowed seek medical attention immediately. Do not induce vomiting.

#### **Fire**

Use CO<sub>2</sub>, dry chemical, alcohol-resistant foam

#### **Spills and Leaks**

Contain and collect spillage

#### **Storage**

Store in dry well ventilated place. Keep tightly sealed. Prevent unauthorized access.

**Disposal**

Dispose of contents/container in approved waste disposal plant

**Hazard not Otherwise Classified (HNOC)**

Prolonged or repeated contact may cause skin sensitization or dermatitis. Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage. Intentional misuse by deliberately concentrating or inhaling this product may be harmful or fatal. IARC (International Agency for Research of Cancer) has classified Carbon Black and Titanium Dioxide as a possible human carcinogen (2B).

|  |
|--|
| <b>3. COMPOSITION / INFORMATION ON INGREDIENTS</b> |
|--|

| Chemical Name           | CAS -No      | Weight % | Trade Secret |
|-------------------------|--------------|----------|--------------|
| Aromatic Hydrocarbon    | 64742-95-6   | 26-36    | *            |
| Titanium Dioxide        | 13463-67-7   | 32-42    |              |
| Rosin Based Resin       | 68152-57-8   | 15-25    |              |
| Xylene                  | 1330-20-7    | 1-5      | *            |
| 1,2,4 Trimethyl Benzene | 95-63-6      | 1-5      |              |
| C.I. Solvent yellow     | 56 2481-94-9 | 1-5      | *            |

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

|                              |
|------------------------------|
| <b>4. FIRST AID MEASURES</b> |
|------------------------------|

**Description of necessary first-aid measures**

|                       |   |
|-----------------------|---|
| <b>General Advice</b> | In case of doubt, or when symptoms persist, seek medical attention. Do not leave victim unattended.   |
| <b>Eye Contact</b>    | Immediately flush eyes with plenty of water for at least fifteen (15) minutes. Remove contact lenses. Get medical attention immediately.  |
| <b>Skin Contact</b>   | Flush skin with plenty of water. Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleanser.   |
| <b>Inhalation:</b>    | Remove to fresh air, keep patient warm and at rest. If breathing is irregular seek medical advice. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately. |
| <b>Ingestion</b>      | Seek medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.  |

**Protection of First Aiders** Use personal protection equipment.

**Most important symptoms/effects, acute and delayed**

**Most important symptoms/effects** Drowsiness, blurred vision if concentrated and inhaled.

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

**Note to physician** Treat symptomatically

|                                  |
|----------------------------------|
| <b>5. FIRE-FIGHTING MEASURES</b> |
|----------------------------------|

FLASH POINT: 108°F (TCC) ASTM D56 Note: Minimum

FLAMMABLE LIMITS: LEL 0.9 UEL 6.0 @ 77°F Note: Approximate

**Suitable Extinguishing Media**

Dry chemical, carbon dioxide, alcohol resistant foam. For large fires, use foam. Shut off flow and allow to burn out.

**Unsuitable extinguishing media** High volume water jet

**Specific Hazards arising from the chemical** Vapors explosive if collected. Vapors are heavier than air and may travel along ground, or be moved by ventilation and be ignited by ignition source. Do not allow run off from fire-fighting to run into drains or water courses. If run-off occurs, notify proper authorities.

**Protective Equipment and Precautions for Firefighters**

Wear appropriate self-contained breathing apparatus MSHA/NIOSH (approved or equivalent) and full protective gear. Cool closed containers exposed to fire with water spray. Avoid inhalation of material or combustion by-products; stay upwind.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Avoid breathing vapours. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment.

**Environmental Precautions** Avoid release into the environment. Do not allow to enter drains or watercourses. If the product contaminates rivers, lakes or drains, inform respective authorities.

**Methods and materials for containment and cleaning up**

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

**Methods for Cleaning Up** Contain the spillage with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth to soak up the product and place in a suitable container for disposal in accordance with the waste regulations

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Avoid skin and eye contact. Avoid the inhalation of vapor and mist. Keep away from open flame and sources of ignition.

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

**Storage** Keep away for open flame, hot surfaces and sources of ignition. Keep containers tightly closed. Observe label precautions. Store between 5-25° C in a dry, well ventilated place. Prevent unauthorized access.

Information on this Material Safety Data Sheets refers to ink used in pens and markers; however, it applies to these inks in bulk. The inks are contained in capillary or valve reservoirs and will not spill or leak under normal conditions

**Incompatible products** Strong oxidizing and reducing agents, strong alkalis and strong acids.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Limits**

| Ingredient           | CAS No.    | OSHA PEL    | ACGIH-TLV   | Recommended |
|----------------------|------------|-------------|-------------|-------------|
| Aromatic Hydrocarbon | 64742-95-6 | TWA 100 ppm | TWA 100 ppm | No Data     |

|                         |              |             |             |               |
|-------------------------|--------------|-------------|-------------|---------------|
| Titanium Dioxide        | 13463-67-7   | TWA 10mg/m3 | TWA 10mg/m3 | Nuisance dust |
| Rosin Based Resin       | 68152-57-8   | TWA 15mg/m3 | TWA 10mg/m3 | Nuisance dust |
| Xylene                  | 1330-20-7    | TWA 100 ppm | TWA 100 ppm | No Data       |
| 1,2,4,Trimethyl Benzene | 95-63-6      | TWA 100 ppm | TWA 100 ppm | No Data       |
| C.I. Solvent Yellow     | 56 2481-94-9 | No Data     | No Data     | Nuisance dust |

\*Nuisance dust as free dust only, not as bound in paint or ink.

### **Appropriate engineering controls**

**Engineering Measures** Showers, eyewash stations, ventilation systems

### **Individual protection measures, such as personal protective equipment**

**Eye/Face protection** None under normal use conditions. Avoid eye contact. Wear chemical splash goggles in compliance with OSHA regulation if splashing is possible

**Skin and body Protection** None under normal use conditions. Avoid repeated or prolonged contact with skin. Wear impervious gloves if needed to prevent possible skin irritation.

**Respiratory Protection** None under normal use conditions. Use with adequate ventilation. If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

**Hygiene Measures** Use in a well-ventilated area. When using do not eat, drink, or smoke. Provide regular cleaning of equipment, work areas and clothing.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

| <b><u>Property</u></b>     | <b><u>Value</u></b> |
|----------------------------|---------------------|
| Boiling Point:             | 318-338°F           |
| Specific Gravity (H2O = 1) | 0.87 @60°F          |
| Vapor Pressure:            | 2.09 @68°F          |
| Melting Point:             | 7°F                 |
| Vapor Density (Air=1)      | >1                  |
| Evaporation (BA=1)         | 0.3                 |
| Solubility in Water:       | 0.02 @77°F          |
| Appearance and Order:      | Viscous liquid      |
| Order                      | Aromatic odor       |

## **10. STABILITY AND REACTIVITY**

|   |   |
|---|---|
| <b>Reactivity</b>                         | No data available   |
| <b>Chemical Stability</b>                 | Stable under normal storage and handling conditions                   |
| <b>Possibility of Hazardous reactions</b> | None under normal use   |
| <b>Hazardous Polymerization</b>           | Will not occur  |
| <b>Conditions to Avoid</b>                | Heat, open flame, sparks, and sources of ignition                     |
| <b>Incompatible Materials</b>             | Strong oxidizing and reducing agents, strong alkalis and strong acids |
| <b>Hazardous Decomposition Products</b>   | No decomposition if stored and applied as directed.                   |

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Product Information** There is no data available on the product itself.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** There is no data available on the product itself

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Dispose of in accordance with all applicable local, state and federal regulations. Do not allow to enter into drains, water courses or the soil.

**Contaminated Packaging** Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

DOMESTIC HIGHWAY (Containers < 1 Quart are ORM-D)

PROPER SHIPPING NAME: Ink/Paint

HAZARD CLASS/SUBSIDIARY HAZARD: 3

UN/NA NO. UN1263

PACKING GROUP: III

LABEL REQUIRED: Combustible Liquid

DOMESTIC AIR SHIPMENTS (PENS)

PROPER SHIPPING NAME: Consumer Commodity

HAZARD CLASS/SUBSIDIARY HAZARD: 9

UN/NA NO. I.D. 8000

PACKING GROUP: None

LABEL REQUIRED: Class 9

## 15. Regulatory Information

### **U.S. Federal Regulations**

**TSCA:** Ingredients in this product are listed on the TSCA inventory as a UVCB (Unknown, Variable Composition or Biological) Chemical at CAS Registry Number 64742-95-6.

Clean Water Act/Oil Pollution Act:

Ingredients in this product are classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990.

**CERCLA:** Ingredients in this product as sold are derived from a fraction of crude oil and are excluded from spill reporting requirements by CERCLA Section 101 (14) (F).

### **SARA Title III:**

Sec. 302/304: None

Sec. 311/312: Delayed Health, Fire

Sec 313: 1,2,4-Trimethylbenzene 95-63-6 32.0%

Xylene 1330-20-7 3.0%

Cumene 98-82-8 1.5%

**California Prop 65:** This product contains the following chemicals known to the State of California to cause cancer: Ethylbenzene

**Canada** This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

**WHMIS Classification:** Not Controlled.

**NSNR Status (New Substance)** All ingredients in the product are listed, as required, on Canada's Domestic

**Notifications Regulations:** Substances List (DSL).

**NPRI Substances (National**



**Pollutant Release Inventory):** Xylene, 1,2,4-Trimethylbenzene

**Risk Phrases:** None

**Safety Phrases:** S2: Keep out of reach of children.

**OTHERS**

This product does not contain chemicals known to deplete the ozone layer.

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

Health Hazard 1

Flammability 2

Reactivity 0

Personal Protection B

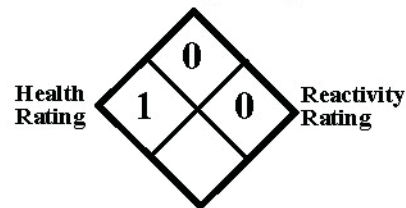
SKM Industries, Inc., the preparer of this MSDS, believes that the information contained herein (including data and statements) is accurate as of the date thereof. NO WARRANTY OR MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE AS CONCERNS THE INFORMATION HEREIN PROVIDED. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and the information referred to herein are beyond the control of SKM Industries, Inc., the preparer of this MSDS (references to SKM Industries Inc., the preparer of this MSDS, including its divisions, affiliates and subsidiaries). SKM Industries, Inc., the preparer of this MSDS, expressly disclaims all liability as to any results obtained or arising from any use of the product or such information. No statement made herein shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents.

**End of Safety Data Sheet**



**MATERIAL SAFETY DATAT SHEET**  
**ORGANIC BONDED GRINDING AND CUTTING WHEELS**

Flammability Rating



HAZARD RATING

Please rate consistent with NFPA Code

**SECTION 1 NAME AND PRODUCT**

|  |  |
|--|--|
| MANUFACTURER'S NAME: <b>METABO CORPORATION</b>   | CONTACT: <b>Terry Tuerk</b>                  |
| ADDRESS (STREET, CITY, STATE AND ZIP CODE): <b>1231 WILSON DRIVE, WEST CHESTER, PA 19380</b> | EMERGENCY TELEPHONE #: <b>(800) 638-2264</b> |
| TRADE NAME, COMMON NAME OR SPECIFICATION: <b>ORGANIC BONDED GRINDING WHEELS</b>              | APPROVED BY:                                 |
| CHEMICAL FAMILY OR PRODUCT TYPE: <b>ANY GRADE</b>  | DATE: <b>Update 8/28/2009</b>                |

**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 <sup>3</sup> (Total Dust)  | 10mg/m <sup>3</sup> (Total Dust)  | N                |
| Silicon Carbide   | 90    | Silicon Carbide  | Y          | 409-21-2   | 10mg/m <sup>3</sup> (Total Dust)  | 10mg/m <sup>3</sup> (Total Dust)  | N                |
| Zirconia Alumina  | 90    | Zirconia Alumina | Y          | 70692-95-4 | 5mg/m <sup>3</sup> (as Zirconium) | 5mg/m <sup>3</sup> (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 <sup>3</sup>              | 2.5mg/m <sup>3</sup>              | N                |
| Pyrite FeS <sub>2</sub>   | 2     | Pyrite           | Y          | 1309-36-0  | **NAIF                            | 2.0mg/m <sup>3</sup>              | N                |
| Glass, Fibrous or Dust  | 10    | Fiberglass       | Y          | 65997-17-3 | 15mg/m <sup>3</sup> -- Total Dust | 10mg/m <sup>3</sup> -- 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<br>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

## SECTION VI HEALTH, FIRST AID AND MEDICAL DATA

| <i>PRIMARY ROUTE(S)<br/>OF ENTRY</i>                          | <i>ACUTE AND CHRONIC HEALTH EFFECTS<br/>AND EFFECTS OF OVEREXPOSURE</i>  | <i>FIRST AID AND<br/>MEDICAL INFORMATION</i>  |
|---|--|---|
| <b>INHALATION<br/>(During Grinding)</b>                       | <b>ACUTE: POSSIBLE COUGH<br/>CHRONIC: MAY AFFECT BREATHING<br/>CAPACITY.</b>   | <b>REMOVE TO FRESH AIR.<br/>ARTIFICIAL RESPIRATION AS NEEDED.<br/>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.</b> |
| <b>INGESTION<br/>(During Grinding)</b>                        | <b>NO KNOWN ADVERSE EFFECTS, BUT<br/>INGESTION NOT RECOMMENDED.</b>  | <b>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.</b>  |
| <b>SKIN (During Grinding)</b>                                 | <b>SOME MAY EXPERIENCE SKIN IRRITATION<br/>FROM DUST.</b>  | <b>WASH AFFECTED AREAS WITH SOAP AND WATER.<br/>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.</b>                   |
| <b>EYE (During Grinding)</b>                                  | <b>DUST MAY IRRITATE EYES.</b>   | <b>WASH WITH LARGE AMOUNTS OF WATER.<br/>OBTAIN FIRST AID AND MEDICAL<br/>ASSISTANCE, IF NEEDED.</b>        |
| <b>OTHER POTENTIAL<br/>HEALTH RISKS<br/>(During Grinding)</b> | <b>GRINDING MAY CREATE ELEVATED SOUND<br/>LEVELS WHICH MAY AFFECT HEARING AND<br/>DUST WHICH MAY AGGRAVATE PREEXISTING<br/>RESPIRATORY CONDITIONS.</b> | <b>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.<br/>REMOVE TO FRESH AIR.</b>                                       |

## SECTION VII STORAGE, HANDLING AND USE PROCEDURES

**NORMAL STORAGE AND HANDLING  
SEE ANSI STANDARD B7.1.**

**NORMAL USE  
HANDLING WITH ADEQUATE VENTILATION. SEE OSHA 29CFR 1910.94 (VENTILATION) and 29CFR1910.1000 (AIR  
CONTAMINANTS)**

**STEPS TO BE TAKEN IN CASE OF LEAKS OR SPILLS.  
NORMAL CLEANUP PROCEDURES. *EVALUATE ALL PRODUCT IN ACCORDANCE WITH ANSI B7.1.***

**WASTE DISPOSAL METHOD  
STANDARD LANDFILL METHODS CONSISTENT WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.  
*PRODUCTS CONTAINING FLOURIDES MAY LEACH A VERY SLIGHT AMOUNT IN LANDFILLS.***

## SECTION VIII PERSONAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (SPECIFY TYPE) AS NEEDED. FOR APPROVED DUST RESPIRATORS SEE OSHA 29CFR 1910.134**

|                          |   |                    |
|--------------------------|---|--------------------|
| <b>VENTILATION</b>       | <b>LOCAL</b>  | <b>RECOMMENDED</b> |
|                          | <b>MECHANICAL<br/>(GENERAL)</b>   | <b>RECOMMENDED</b> |
|                          | <b>OTHER</b>  | <b>**NAIF</b>      |
| <b>PROTECTIVE GLOVES</b> | <b>RECOMMENDED</b>  |                    |
| <b>EYE PROTECTION</b>    | <b>RECOMMENDED</b>  |                    |
| <b>OTHER EQUIPMENT</b>   | <b>AS NEEDED HEARING PROTECTION SEE OSHA 29CFR 1910.95 (HEARING PROTECTION)</b> |                    |

**MEASURES TO BE TAKEN DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT THAT HAS BEEN IN CON-  
TACT WITH THIS MATERIAL.**

**SEE SECTION VII & VIII**

## SECTION IX FIRE AND EXPLOSION HAZARD DATA

|   |                          |                         |                |                   |
|---|--------------------------|-------------------------|----------------|-------------------|
| <b>FLASH POINT **NAIF</b>               | <b>METHOD USED **N/A</b> | <b>FLAMMABLE LIMITS</b> | <b>LEL N/A</b> | <b>UEL ***N/A</b> |
| <b>EXTINGUISHING MEDIA</b>              | <b>USE WATER</b>         |                         |                |                   |
| <b>SPECIAL FIRE FIGHTING PROCEDURES</b> | <b>NONE</b>              |                         |                |                   |
| <b>EXPLOSION POTENTIAL</b>              | <b>**NAIF</b>            |                         |                |                   |

### FOR COMPANY USE

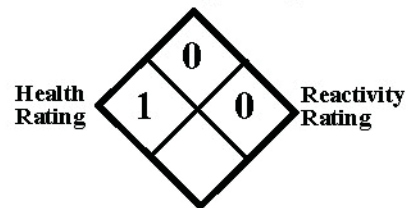
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**MATERIAL SAFETY DATASHEET**  
**ORGANIC BONDED GRINDING AND CUTTING WHEELS**

Flammability Rating



HAZARD RATING

Please rate consistent with NFPA Code

**SECTION I NAME AND PRODUCT**

|  |  |
|--|--|
| MANUFACTURER'S NAME: <b>METABO CORPORATION</b>   | CONTACT: <b>Terry Tuerk</b>                  |
| ADDRESS (STREET, CITY, STATE AND ZIP CODE): <b>1231 WILSON DRIVE, WEST CHESTER, PA 19380</b> | EMERGENCY TELEPHONE #: <b>(800) 638-2264</b> |
| TRADE NAME, COMMON NAME OR SPECIFICATION: <b>ORGANIC BONDED GRINDING WHEELS</b>              | APPROVED BY:                                 |
| CHEMICAL FAMILY OR PRODUCT TYPE: <b>ANY GRADE</b>  | DATE: <b>Update 8/28/2009</b>                |

**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 <sup>3</sup> (Total Dust)  | 10mg/m <sup>3</sup> (Total Dust)  | N                |
| Silicon Carbide   | 90    | Silicon Carbide  | Y          | 409-21-2   | 10mg/m <sup>3</sup> (Total Dust)  | 10mg/m <sup>3</sup> (Total Dust)  | N                |
| Zirconia Alumina  | 90    | Zirconia Alumina | Y          | 70692-95-4 | 5mg/m <sup>3</sup> (as Zirconium) | 5mg/m <sup>3</sup> (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 <sup>3</sup>              | 2.5mg/m <sup>3</sup>              | N                |
| Pyrite FeS <sub>2</sub>   | 2     | Pyrite           | Y          | 1309-36-0  | **NAIF                            | 2.0mg/m <sup>3</sup>              | N                |
| Glass, Fibrous or Dust  | 10    | Fiberglass       | Y          | 65997-17-3 | 15mg/m <sup>3</sup> -- Total Dust | 10mg/m <sup>3</sup> -- 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<br>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

## SECTION VI HEALTH, FIRST AID AND MEDICAL DATA

| <i>PRIMARY ROUTE(S)<br/>OF ENTRY</i>                          | <i>ACUTE AND CHRONIC HEALTH EFFECTS<br/>AND EFFECTS OF OVEREXPOSURE</i>  | <i>FIRST AID AND<br/>MEDICAL INFORMATION</i>  |
|---|--|---|
| <b>INHALATION<br/>(During Grinding)</b>                       | <b>ACUTE: POSSIBLE COUGH<br/>CHRONIC: MAY AFFECT BREATHING<br/>CAPACITY.</b>   | <b>REMOVE TO FRESH AIR.<br/>ARTIFICIAL RESPIRATION AS NEEDED.<br/>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.</b> |
| <b>INGESTION<br/>(During Grinding)</b>                        | <b>NO KNOWN ADVERSE EFFECTS, BUT<br/>INGESTION NOT RECOMMENDED.</b>  | <b>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.</b>  |
| <b>SKIN (During Grinding)</b>                                 | <b>SOME MAY EXPERIENCE SKIN IRRITATION<br/>FROM DUST.</b>  | <b>WASH AFFECTED AREAS WITH SOAP AND WATER.<br/>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.</b>                   |
| <b>EYE (During Grinding)</b>                                  | <b>DUST MAY IRRITATE EYES.</b>   | <b>WASH WITH LARGE AMOUNTS OF WATER.<br/>OBTAIN FIRST AID AND MEDICAL<br/>ASSISTANCE, IF NEEDED.</b>        |
| <b>OTHER POTENTIAL<br/>HEALTH RISKS<br/>(During Grinding)</b> | <b>GRINDING MAY CREATE ELEVATED SOUND<br/>LEVELS WHICH MAY AFFECT HEARING AND<br/>DUST WHICH MAY AGGRAVATE PREEXISTING<br/>RESPIRATORY CONDITIONS.</b> | <b>OBTAIN MEDICAL ASSISTANCE, IF NEEDED.<br/>REMOVE TO FRESH AIR.</b>                                       |

## SECTION VII STORAGE, HANDLING AND USE PROCEDURES

**NORMAL STORAGE AND HANDLING  
SEE ANSI STANDARD B7.1.**

**NORMAL USE  
HANDLING WITH ADEQUATE VENTILATION. SEE OSHA 29CFR 1910.94 (VENTILATION) and 29CFR1910.1000 (AIR  
CONTAMINANTS)**

**STEPS TO BE TAKEN IN CASE OF LEAKS OR SPILLS.  
NORMAL CLEANUP PROCEDURES. *EVALUATE ALL PRODUCT IN ACCORDANCE WITH ANSI B7.1.***

**WASTE DISPOSAL METHOD  
STANDARD LANDFILL METHODS CONSISTENT WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.  
*PRODUCTS CONTAINING FLOURIDES MAY LEACH A VERY SLIGHT AMOUNT IN LANDFILLS.***

## SECTION VIII PERSONAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (SPECIFY TYPE) AS NEEDED. FOR APPROVED DUST RESPIRATORS SEE OSHA 29CFR 1910.134**

|                    |                                 |                    |
|--------------------|---------------------------------|--------------------|
| <b>VENTILATION</b> | <b>LOCAL</b>                    | <b>RECOMMENDED</b> |
|                    | <b>MECHANICAL<br/>(GENERAL)</b> | <b>RECOMMENDED</b> |
|                    | <b>OTHER</b>                    | <b>**NAIF</b>      |

**PROTECTIVE GLOVES** RECOMMENDED

**EYE PROTECTION** RECOMMENDED

**OTHER EQUIPMENT** AS NEEDED HEARING PROTECTION SEE OSHA 29CFR 1910.95 (HEARING PROTECTION)

**MEASURES TO BE TAKEN DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT THAT HAS BEEN IN CON-  
TACT WITH THIS MATERIAL.**

SEE SECTION VII & VIII

## SECTION IX FIRE AND EXPLOSION HAZARD DATA

|   |                          |                         |                |                   |
|---|--------------------------|-------------------------|----------------|-------------------|
| <b>FLASH POINT **NAIF</b>               | <b>METHOD USED **N/A</b> | <b>FLAMMABLE LIMITS</b> | <b>LEL N/A</b> | <b>UEL ***N/A</b> |
| <b>EXTINGUISHING MEDIA</b>              | <b>USE WATER</b>         |                         |                |                   |
| <b>SPECIAL FIRE FIGHTING PROCEDURES</b> | <b>NONE</b>              |                         |                |                   |
| <b>EXPLOSION POTENTIAL</b>              | <b>**NAIF</b>            |                         |                |                   |

### FOR COMPANY USE

*The information and recommendations set forth herein are taken from sources believed to be accurate as of the date hereof; however, Metabo Corporation makes no warranty with respect to the information or the suitability of the recommendations, and assumes no liability to any user thereof.*


# SAFETY DATA SHEET

## Oxygen

### Section 1. Identification

|                                      |  |
|--------------------------------------|--|
| <b>GHS product identifier</b>        | : Oxygen   |
| <b>Chemical name</b>                 | : oxygen   |
| <b>Other means of identification</b> | : Molecular oxygen; Oxygen molecule; Pure oxygen; O <sub>2</sub> ; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO) |
| <b>Product type</b>                  | : Gas.   |
| <b>Product use</b>                   | : Synthetic/Analytical chemistry.  |
| <b>Synonym</b>                       | : Molecular oxygen; Oxygen molecule; Pure oxygen; O <sub>2</sub> ; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO) |
| <b>SDS #</b>                         | : 001043   |
| <b>Supplier's details</b>            | : Airgas USA, LLC and its affiliates<br>259 North Radnor-Chester Road<br>Suite 100<br>Radnor, PA 19087-5283<br>1-610-687-5253      |
| <b>24-hour telephone</b>             | : 1-866-734-3438   |

### Section 2. Hazards identification

|   |   |
|---|---|
| <b>OSHA/HCS status</b>                            | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).   |
| <b>Classification of the substance or mixture</b> | : OXIDIZING GASES - Category 1<br>GASES UNDER PRESSURE - Compressed gas   |
| <b>GHS label elements</b>                         |   |
| <b>Hazard pictograms</b>                          | :    |
| <b>Signal word</b>                                | : Danger  |
| <b>Hazard statements</b>                          | : May cause or intensify fire; oxidizer.<br>Contains gas under pressure; may explode if heated.   |
| <b>Precautionary statements</b>                   |   |
| <b>General</b>                                    | : 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. |
| <b>Prevention</b>                                 | : Keep away from clothing and other combustible materials. Keep reduction valves, valves and fittings free from oil and grease.   |
| <b>Response</b>                                   | : In case of fire: Stop leak if safe to do so.  |
| <b>Storage</b>                                    | : Protect from sunlight. Store in a well-ventilated place.  |
| <b>Disposal</b>                                   | : Not applicable.   |
| <b>Hazards not otherwise classified</b>           | : 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 (ft<sup>3</sup>/lb)** : 12.0482
- Gas Density (lb/ft<sup>3</sup>)** : 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 <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| oxygen                  | 0.65               | -   | low       |

### Mobility in soil










- Soil/water partition coefficient (K<sub>oc</sub>)** : 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   |
|-----------------------------------|--|--|--|--|--|
| <b>UN number</b>                  | UN1072   | UN1072   | UN1072   | UN1072   | UN1072   |
| <b>UN proper shipping name</b>    | OXYGEN, COMPRESSED   | OXYGEN, COMPRESSED   | OXYGEN, COMPRESSED   | OXYGEN, COMPRESSED   | OXYGEN, COMPRESSED   |
| <b>Transport hazard class(es)</b> | 2.2 (5.1)<br>  | 2.2<br> | 2.2 (5.1)<br>  | 2.2 (5.1)<br>  | 2.2 (5.1)<br>  |
| <b>Packing group</b>              | -  | -  | -  | -  | -  |
| <b>Environmental hazards</b>      | 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<br>GASES UNDER PRESSURE - Compressed gas | Expert judgment<br>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.



# Safety Data Sheet

Version 1.14  
Revision Date 03/29/2021

SDS Number 300000000110  
Print Date 11/19/2021

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Oxygen

Chemical formula : O<sub>2</sub>

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.

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## 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.

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## 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.

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## 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.

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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 : -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 <sup>3</sup> (0.0013 g/cm <sup>3</sup> ) at 70 °F (21 °C) Note: (as vapor) |
| Specific Volume                                  | : 12.08 ft <sup>3</sup> /lb (0.7540 m <sup>3</sup> /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.<br>Organic materials.<br>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/>

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# 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](http://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

# PB Penetrating Catalyst

## Safety Data Sheet

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. |
|----------------------|--|

# PB Penetrating Catalyst

## Safety Data Sheet

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 <sup>3</sup> ) | 9000 mg/m <sup>3</sup> |
| 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.

# PB Penetrating Catalyst

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

### 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.

# PB Penetrating Catalyst

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

| <b>PB Penetrating Catalyst</b>                                 |   |
|--|---|
| 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)  |
| <b>Petroleum distillates, hydrotreated light (64742-47-8)</b>  |   |
| LD50 oral rat  | > 5000 mg/kg                                      |
| LD50 dermal rabbit   | > 2000 mg/kg                                      |
| LC50 inhalation rat  | > 5.2 mg/l/4h                                     |
| <b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b> |   |
| LD50 oral rat  | > 5000 mg/kg                                      |
| LD50 dermal rabbit   | > 2 ml/kg   |
| LC50 inhalation rat  | > 590 mg/m <sup>3</sup> (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.

| <b>Petroleum distillates, hydrotreated light (64742-47-8)</b>             |   |
|---|---|
| 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])      |
| <b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b>            |   |
| 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)              |
| <b>Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)</b> |   |
| 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

| <b>PB Penetrating Catalyst</b> |                  |
|--------------------------------|------------------|
| Persistence and degradability  | Not established. |

# PB Penetrating Catalyst

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

### 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



# PB Penetrating Catalyst

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

| 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<br>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.

*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.*



# 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

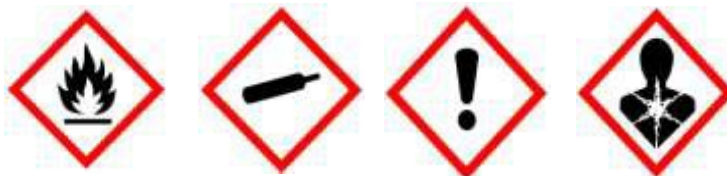
**Hazard class**

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/<br>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 <sup>3</sup>      |
| Solvent naphtha (petroleum), heavy aromatic            | Not available.                      | Not available.             |
| Distillates (petroleum), hydrotreated heavy naphthenic | 5 mg/m <sup>3</sup> (mist)          | 5 mg/m <sup>3</sup> (mist) |
| Carbon dioxide   | 5000 ppm;<br>9000 mg/m <sup>3</sup> | 5000 ppm                   |
| Naphthalene  | 10 ppm;<br>50 mg/m <sup>3</sup>     | 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

|   |                          |
|---|--------------------------|
| <b>Appearance:</b>                              | Viscous / Oily.          |
| <b>Color:</b>                                   | Orange.                  |
| <b>Odor:</b>                                    | Heavy aromatic.          |
| <b>Odor Threshold:</b>                          | Not available.           |
| <b>Physical State:</b>                          | Gas/pressurized liquid.  |
| <b>pH:</b>                                      | Not available.           |
| <b>Melting Point/Freezing Point:</b>            | Not available.           |
| <b>Initial Boiling Point and Boiling Range:</b> | 177.8 °C (352 °F)        |
| <b>Flash Point:</b>                             | 65.6 °C (150 °F)         |
| <b>Evaporation Rate:</b>                        | <1 (n-butyl acetate = 1) |
| <b>Flammability:</b>                            | Flammable.               |
| <b>Lower Flammability/Explosive Limit:</b>      | Not available.           |
| <b>Upper Flammability/Explosive Limit:</b>      | Not available.           |
| <b>Vapor Pressure:</b>                          | Not available.           |
| <b>Vapor Density:</b>                           | >1 (Air = 1)             |
| <b>Relative Density/Specific Gravity:</b>       | 0.91 (Water = 1)         |
| <b>Solubility:</b>                              | Negligible.              |



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|  |                |
|--|----------------|
| <b>Partition coefficient: n-octanol/water:</b> | Not available. |
| <b>Auto-ignition Temperature:</b>              | Not available. |
| <b>Decomposition Temperature:</b>              | Not available. |
| <b>Viscosity:</b>                              | Not available. |
| <b>Oxidizing Properties:</b>                   | Not available. |
| <b>Explosive Properties:</b>                   | Not available. |
| <b>VOC Content:</b>                            | < 25%          |
| <b>Flame Projection:</b>                       | 0 cm           |
| <b>Heat of Combustion:</b>                     | 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.



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**Acute Toxicity:**

| Ingredient   | IDLH           | LC50                             | LD50  |
|--|----------------|----------------------------------|---|
| Distillates (petroleum), hydrotreated light            | Not available. | Inhalation<br>>5.2 mg/L 4h rat   | Oral >5000 mg/kg, rat;<br>Dermal >2000 mg/kg, rabbit                        |
| Solvent naphtha (petroleum), heavy aromatic            | Not available. | Inhalation<br>>5.28 mg/L 4h, rat | Oral >5000 mg/kg, rat;<br>Dermal >2000 mg/kg, rabbit                        |
| Distillates (petroleum), hydrotreated heavy naphthenic | Not available. | Inhalation<br>>5.0 mg/L 4h, rat  | Oral >5000 mg/kg, rat;<br>Dermal >5000 mg/kg, rabbit                        |
| Carbon dioxide   | 40000 ppm      | Not available.                   | Not available.  |
| Naphthalene  | 250 ppm        | Not available.                   | Oral 490 mg/kg, rat;<br>Dermal >2500 mg/kg, rat;<br>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.







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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

|            |                          |
|------------|--------------------------|
| <b>DOT</b> | <b>NOM-004-SCT2-1994</b> |
| UN1950     | UN1950                   |

### 14.2 UN PROPER SHIPPING NAME

|   |   |
|---|---|
| <b>DOT</b>                              | <b>NOM-004-SCT2-1994</b>                |
| AEROSOLS, flammable, limited quantities | AEROSOLS, flammable, limited quantities |

### 14.3 TRANSPORT HAZARD CLASS (ES)

|            |                          |
|------------|--------------------------|
| <b>DOT</b> | <b>NOM-004-SCT2-1994</b> |
| 2.1        | 2.1                      |

### 14.4 PACKING GROUP

|                 |                          |
|-----------------|--------------------------|
| <b>DOT</b>      | <b>NOM-004-SCT2-1994</b> |
| Not applicable. | Not applicable.          |





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### 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.     |



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| 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



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Propane

**Other means of identification**  
**SDS number** WC002

**Recommended use** Soldering and brazing.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer/Supplier** Worthington Cylinder Corporation

**Address** 300 E. Breed St.  
 Chilton, WI 53014  
 United States

**E-mail** SDSRequest@worthingtonindustries.com

**Telephone** 1-800-359-9678

**Emergency telephone** CHEMTREC 1-800-424-9300 (USA)  
 1-703-527-3887 International  
 (CCN 628056)

## 2. Hazard(s) identification

**Physical hazards** Flammable gases Category 1  
 Gases under pressure Liquefied gas

**Health hazards** Not classified.

**OSHA defined hazards** Simple asphyxiant

**Label elements**



**Signal word** Danger

**Hazard statement** Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

**Precautionary statement**

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use only with adequate ventilation.

**Response** Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

**Storage** Protect from sunlight. Store in a well-ventilated place.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** Contact with liquefied gas may cause frostbite.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name | CAS number | %          |
|---------------|------------|------------|
| Propane       | 74-98-6    | 87.5 - 100 |
| Propylene     | 115-07-1   | 0 - 10     |
| Ethane        | 74-84-0    | 0 - 7      |

| Chemical name | CAS number | %       |
|---------------|------------|---------|
| Butane        | 106-97-8   | 0 - 2.5 |

| Additives       |                          |            |         |
|-----------------|--------------------------|------------|---------|
| Chemical name   | Common name and synonyms | CAS number | %       |
| Ethyl mercaptan |                          | 75-08-1    | < 0.005 |

**Composition comments** Gas concentrations are in percent by volume.

#### 4. First-aid measures

|   |  |
|---|--|
| <b>Inhalation</b>   | Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.              |
| <b>Skin contact</b>   | Not likely, due to the form of the product. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately.  |
| <b>Eye contact</b>  | Not likely, due to the form of the product. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.   |
| <b>Ingestion</b>  | This material is a gas under normal atmospheric conditions and ingestion is unlikely.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves. |
| <b>Indication of immediate medical attention and special treatment needed</b> | Exposure may aggravate pre-existing respiratory disorders. Provide general supportive measures and treat symptomatically.  |
| <b>General information</b>  | First aid personnel must be aware of own risk during rescue. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.   |

#### 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Water fog. Foam.  |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.  |
| <b>Specific hazards arising from the chemical</b>                    | Extremely flammable gas. May form explosive mixtures with air. Gas may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |
| <b>Fire fighting equipment/instructions</b>                          | Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to flames with water until well after the fire is out.   |
| <b>General fire hazards</b>  | Extremely flammable gas. Contents under pressure. Pressurized container may explode when exposed to heat or flame.  |

#### 6. Accidental release measures

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Wear appropriate personal protective equipment (See Section 8). |
|--|---|

**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. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage**

**Precautions for safe handling**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Do not breathe gas. Avoid prolonged exposure. Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Oxygen concentration should not fall below 19.5 % at sea level (pO2 = 135 mmHg). Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

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

Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Protect cylinders from damage. Stored containers should be periodically checked for general condition and leakage. Store in original tightly closed container. Store in a well-ventilated place. 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                  |
|-----------------------|------|------------------------|
| Propane (CAS 74-98-6) | PEL  | 1800 mg/m3<br>1000 ppm |

**US. ACGIH Threshold Limit Values**

| Components               | Type | Value    |
|--------------------------|------|----------|
| Butane (CAS 106-97-8)    | STEL | 1000 ppm |
| Propylene (CAS 115-07-1) | TWA  | 500 ppm  |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components            | Type | Value                  |
|-----------------------|------|------------------------|
| Butane (CAS 106-97-8) | TWA  | 1900 mg/m3<br>800 ppm  |
| Propane (CAS 74-98-6) | TWA  | 1800 mg/m3<br>1000 ppm |

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

Follow standard monitoring procedures.

**Appropriate engineering controls**

Provide adequate ventilation and minimize the risk of inhalation of gas. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear approved safety glasses or goggles. Face shield is recommended.

**Skin protection**

**Hand protection**

Wear cold insulating gloves.

**Skin protection**

**Other**

Wear protective clothing appropriate for the risk of exposure.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134).

WARNING! Air-purifying respirators do not protect workers in oxygen deficient atmospheres.

|                                       |   |
|---------------------------------------|---|
| <b>Thermal hazards</b>                | Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.  |
| <b>General hygiene considerations</b> | Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices. |

## 9. Physical and chemical properties

### Appearance

|   |   |
|---|---|
| <b>Physical state</b>                               | Gas.  |
| <b>Form</b>   | Compressed liquefied gas.                             |
| <b>Color</b>  | Colorless.  |
| <b>Odor</b>   | Rotten egg.   |
| <b>Odor threshold</b>                               | Not determined.                                       |
| <b>pH</b>   | Not applicable.                                       |
| <b>Melting point/freezing point</b>                 | -306.4 °F (-188 °C)                                   |
| <b>Initial boiling point and boiling range</b>      | -43.6 °F (-42 °C) 14.7 psia                           |
| <b>Flash point</b>                                  | -155.2 °F (-104.0 °C)                                 |
| <b>Evaporation rate</b>                             | Not determined.                                       |
| <b>Flammability (solid, gas)</b>                    | Extremely flammable gas.                              |
| <b>Upper/lower flammability or explosive limits</b> |   |
| <b>Explosive limit - lower (%)</b>                  | 2.15 %  |
| <b>Explosive limit - upper (%)</b>                  | 9.6 %   |
| <b>Vapor pressure</b>                               | 127 psig (21°C / 70°F)                                |
| <b>Vapor density</b>                                | Not determined.                                       |
| <b>Relative density</b>                             | 0.504 (liquid)<br>1.5 (vapor) (Air=1) (59 °F (15 °C)) |
| <b>Solubility(ies)</b>                              |   |
| <b>Solubility (water)</b>                           | Slightly soluble in water.                            |
| <b>Partition coefficient (n-octanol/water)</b>      | 1.77  |
| <b>Auto-ignition temperature</b>                    | 809.6 °F (432 °C)                                     |
| <b>Decomposition temperature</b>                    | Not determined.                                       |
| <b>Viscosity</b>                                    | Not applicable.                                       |
| <b>Other information</b>                            |   |
| <b>Density</b>                                      | Not determined.                                       |
| <b>Explosive properties</b>                         | Not explosive.  |
| <b>Kinematic viscosity</b>                          | Not determined.                                       |
| <b>Molecular weight</b>                             | 45 g/mol  |
| <b>Oxidizing properties</b>                         | Not oxidizing.  |
| <b>Particle size</b>                                | Not applicable.                                       |
| <b>Percent volatile</b>                             | 100 %   |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.            |
| <b>Chemical stability</b>                 | Stable under normal temperature conditions and recommended use.  |
| <b>Possibility of hazardous reactions</b> | Polymerization will not occur. May form explosive mixture with air. This product may react with oxidizing agents.                              |
| <b>Conditions to avoid</b>                | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Strong oxidizing agents. Halogens. Nitrates.   |

**Hazardous decomposition products** Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Hydrocarbons.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

**Skin contact** Contact with liquefied gas may cause frostbite.

**Eye contact** Contact with liquefied gas may cause frostbite.

**Ingestion** This material is a gas under normal atmospheric conditions and ingestion is unlikely.

**Symptoms related to the physical, chemical and toxicological characteristics** Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves.

### Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

| Components  | Species  | Test Results            |
|---|--|-------------------------|
| Propane (CAS 74-98-6)   |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Inhalation</b>   |  |                         |
| Gas   |  |                         |
| LC50  | Rat  | > 80000 ppm, 15 Minutes |
| Propylene (CAS 115-07-1)  |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Inhalation</b>   |  |                         |
| Gas   |  |                         |
| LC50  | Rat  | > 65000 ppm, 4 Hours    |
| <b>Skin corrosion/irritation</b>                                      | Not classified.  |                         |
| <b>Serious eye damage/eye irritation</b>                              | Not classified.  |                         |
| <b>Respiratory or skin sensitization</b>                              |  |                         |
| <b>Respiratory sensitization</b>                                      | Not a respiratory sensitizer.  |                         |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.  |                         |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |                         |
| <b>Carcinogenicity</b>  | Not classifiable as to carcinogenicity to humans.  |                         |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         |  |                         |
| Propylene (CAS 115-07-1)  | 3 Not classifiable as to carcinogenicity to humans.  |                         |
| <b>NTP Report on Carcinogens</b>                                      |  |                         |
| Not listed.   |  |                         |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b> |  |                         |
| Not listed.   |  |                         |
| <b>Reproductive toxicity</b>  | This product is not expected to cause reproductive or developmental effects.                                     |                         |
| <b>Specific target organ toxicity - single exposure</b>               | Not classified.  |                         |
| <b>Specific target organ toxicity - repeated exposure</b>             | Not classified.  |                         |
| <b>Aspiration hazard</b>  | Not relevant, due to the form of the product.  |                         |
| <b>Chronic effects</b>  | Exposure over a long period of time may cause central nervous system effects.                                    |                         |



## 12. Ecological information

|  |  |
|--|--|
| <b>Ecotoxicity</b>                                       | The product is not expected to be hazardous to the environment.                                      |
| <b>Persistence and degradability</b>                     | Not relevant, due to the form of the product.  |
| <b>Bioaccumulative potential</b>                         | Not relevant, due to the form of the product.  |
| <b>Partition coefficient n-octanol / water (log Kow)</b> |  |
| Propane (CAS 74-98-6)                                    | 2.36   |
| Propylene (CAS 115-07-1)                                 | 1.77   |
| <b>Mobility in soil</b>                                  | Not relevant, due to the form of the product.  |
| <b>Other adverse effects</b>                             | The product contains volatile organic compounds which have a photochemical ozone creation potential. |

## 13. Disposal considerations

|  |   |
|--|---|
| <b>Disposal instructions</b>                 | Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations. |
| <b>Local disposal regulations</b>            | Dispose of in accordance with local regulations.  |
| <b>Hazardous waste code</b>                  | D001: Waste Flammable material with a flash point <140 °F<br>The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Waste from residues / unused products</b> | Dispose in accordance with all applicable regulations.  |
| <b>Contaminated packaging</b>                | Empty containers should be taken to an approved waste handling site for recycling or disposal.  |

## 14. Transport information

### DOT

|                                     |   |
|-------------------------------------|---|
| <b>UN number</b>                    | UN1075  |
| <b>UN proper shipping name</b>      | Petroleum gases, liquefied  |
| <b>Transport hazard class(es)</b>   |   |
| <b>Class</b>                        | 2.1   |
| <b>Subsidiary risk</b>              | -   |
| <b>Label(s)</b>                     | 2.1   |
| <b>Packing group</b>                | -   |
| <b>Environmental hazards</b>        |   |
| <b>Marine pollutant</b>             | No  |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Special provisions</b>           | T50   |
| <b>Packaging exceptions</b>         | 306   |
| <b>Packaging non bulk</b>           | 304   |
| <b>Packaging bulk</b>               | 314, 315  |

### IATA

|                                     |   |
|-------------------------------------|---|
| <b>UN number</b>                    | UN1075  |
| <b>UN proper shipping name</b>      | Petroleum gases, liquefied  |
| <b>Transport hazard class(es)</b>   |   |
| <b>Class</b>                        | 2.1   |
| <b>Subsidiary risk</b>              | -   |
| <b>Packing group</b>                | -   |
| <b>Environmental hazards</b>        | No  |
| <b>ERG Code</b>                     | 10L   |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |

### IMDG

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>UN number</b>                  | UN1075                     |
| <b>UN proper shipping name</b>    | PETROLEUM GASES, LIQUEFIED |
| <b>Transport hazard class(es)</b> |                            |
| <b>Class</b>                      | 2.1                        |
| <b>Subsidiary risk</b>            | -                          |
| <b>Packing group</b>              | -                          |
| <b>Environmental hazards</b>      |                            |
| <b>Marine pollutant</b>           | No                         |

EmS

E-D, S-U

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 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.

### CERCLA Hazardous Substance List (40 CFR 302.4)

|                               |         |
|-------------------------------|---------|
| Butane (CAS 106-97-8)         | Listed. |
| Ethyl mercaptan (CAS 75-08-1) | Listed. |
| Propane (CAS 74-98-6)         | Listed. |
| Propylene (CAS 115-07-1)      | Listed. |

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)  
Gas under pressure  
Simple asphyxiant  
Hazard not otherwise classified (HNOC)

#### SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|---------------|------------|----------|
| Propylene     | 115-07-1   | 0 - 10   |

### 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)

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### US. New Jersey Worker and Community Right-to-Know Act

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### US. Pennsylvania Worker and Community Right-to-Know Law

Butane (CAS 106-97-8)

Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### US. Rhode Island RTK

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### 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](http://www.P65Warnings.ca.gov).

#### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Butane (CAS 106-97-8)  
Propylene (CAS 115-07-1)

#### International Inventories

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia                   | Australian Inventory of Industrial Chemicals (AICIS)                   | 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) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| Korea                       | Existing Chemicals List (ECL)  | Yes                    |
| 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 05-May-2014  
Revision date 21-March-2021  
Version # 03  
HMIS® ratings Health: 2  
Flammability: 4  
Physical hazard: 3

#### NFPA ratings



#### Disclaimer

All information in this Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Propane

**Other means of identification**  
**SDS number** WC002

**Recommended use** Soldering and brazing.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer/Supplier** Worthington Cylinder Corporation

**Address** 300 E. Breed St.  
 Chilton, WI 53014  
 United States

**E-mail** SDSRequest@worthingtonindustries.com

**Telephone** 1-800-359-9678

**Emergency telephone** CHEMTREC 1-800-424-9300 (USA)  
 1-703-527-3887 International  
 (CCN 628056)

## 2. Hazard(s) identification

**Physical hazards** Flammable gases Category 1  
 Gases under pressure Liquefied gas

**Health hazards** Not classified.

**OSHA defined hazards** Simple asphyxiant

**Label elements**



**Signal word** Danger

**Hazard statement** Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

**Precautionary statement**

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use only with adequate ventilation.

**Response** Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

**Storage** Protect from sunlight. Store in a well-ventilated place.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** Contact with liquefied gas may cause frostbite.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name | CAS number | %          |
|---------------|------------|------------|
| Propane       | 74-98-6    | 87.5 - 100 |
| Propylene     | 115-07-1   | 0 - 10     |
| Ethane        | 74-84-0    | 0 - 7      |

| Chemical name | CAS number | %       |
|---------------|------------|---------|
| Butane        | 106-97-8   | 0 - 2.5 |

#### Additives

| Chemical name   | Common name and synonyms | CAS number | %       |
|-----------------|--------------------------|------------|---------|
| Ethyl mercaptan |                          | 75-08-1    | < 0.005 |

**Composition comments** Gas concentrations are in percent by volume.

## 4. First-aid measures

|   |  |
|---|--|
| <b>Inhalation</b>   | Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.              |
| <b>Skin contact</b>   | Not likely, due to the form of the product. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately.  |
| <b>Eye contact</b>  | Not likely, due to the form of the product. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.   |
| <b>Ingestion</b>  | This material is a gas under normal atmospheric conditions and ingestion is unlikely.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves. |
| <b>Indication of immediate medical attention and special treatment needed</b> | Exposure may aggravate pre-existing respiratory disorders. Provide general supportive measures and treat symptomatically.  |
| <b>General information</b>  | First aid personnel must be aware of own risk during rescue. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.   |

## 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Water fog. Foam.  |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.  |
| <b>Specific hazards arising from the chemical</b>                    | Extremely flammable gas. May form explosive mixtures with air. Gas may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |
| <b>Fire fighting equipment/instructions</b>                          | Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to flames with water until well after the fire is out.   |
| <b>General fire hazards</b>  | Extremely flammable gas. Contents under pressure. Pressurized container may explode when exposed to heat or flame.  |

## 6. Accidental release measures

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Wear appropriate personal protective equipment (See Section 8). |
|--|---|

**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. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage**

**Precautions for safe handling**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Do not breathe gas. Avoid prolonged exposure. Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Oxygen concentration should not fall below 19.5 % at sea level (pO2 = 135 mmHg). Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

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

Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Protect cylinders from damage. Stored containers should be periodically checked for general condition and leakage. Store in original tightly closed container. Store in a well-ventilated place. 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                  |
|-----------------------|------|------------------------|
| Propane (CAS 74-98-6) | PEL  | 1800 mg/m3<br>1000 ppm |

**US. ACGIH Threshold Limit Values**

| Components               | Type | Value    |
|--------------------------|------|----------|
| Butane (CAS 106-97-8)    | STEL | 1000 ppm |
| Propylene (CAS 115-07-1) | TWA  | 500 ppm  |

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| Components            | Type | Value                  |
|-----------------------|------|------------------------|
| Butane (CAS 106-97-8) | TWA  | 1900 mg/m3<br>800 ppm  |
| Propane (CAS 74-98-6) | TWA  | 1800 mg/m3<br>1000 ppm |

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

Follow standard monitoring procedures.

**Appropriate engineering controls**

Provide adequate ventilation and minimize the risk of inhalation of gas. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear approved safety glasses or goggles. Face shield is recommended.

**Skin protection**

**Hand protection**

Wear cold insulating gloves.

**Skin protection**

**Other**

Wear protective clothing appropriate for the risk of exposure.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134).

WARNING! Air-purifying respirators do not protect workers in oxygen deficient atmospheres.

|                                       |   |
|---------------------------------------|---|
| <b>Thermal hazards</b>                | Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.  |
| <b>General hygiene considerations</b> | Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices. |

## 9. Physical and chemical properties

### Appearance

|   |   |
|---|---|
| <b>Physical state</b>                               | Gas.  |
| <b>Form</b>   | Compressed liquefied gas.                             |
| <b>Color</b>  | Colorless.  |
| <b>Odor</b>   | Rotten egg.   |
| <b>Odor threshold</b>                               | Not determined.                                       |
| <b>pH</b>   | Not applicable.                                       |
| <b>Melting point/freezing point</b>                 | -306.4 °F (-188 °C)                                   |
| <b>Initial boiling point and boiling range</b>      | -43.6 °F (-42 °C) 14.7 psia                           |
| <b>Flash point</b>                                  | -155.2 °F (-104.0 °C)                                 |
| <b>Evaporation rate</b>                             | Not determined.                                       |
| <b>Flammability (solid, gas)</b>                    | Extremely flammable gas.                              |
| <b>Upper/lower flammability or explosive limits</b> |   |
| <b>Explosive limit - lower (%)</b>                  | 2.15 %  |
| <b>Explosive limit - upper (%)</b>                  | 9.6 %   |
| <b>Vapor pressure</b>                               | 127 psig (21°C / 70°F)                                |
| <b>Vapor density</b>                                | Not determined.                                       |
| <b>Relative density</b>                             | 0.504 (liquid)<br>1.5 (vapor) (Air=1) (59 °F (15 °C)) |
| <b>Solubility(ies)</b>                              |   |
| <b>Solubility (water)</b>                           | Slightly soluble in water.                            |
| <b>Partition coefficient (n-octanol/water)</b>      | 1.77  |
| <b>Auto-ignition temperature</b>                    | 809.6 °F (432 °C)                                     |
| <b>Decomposition temperature</b>                    | Not determined.                                       |
| <b>Viscosity</b>                                    | Not applicable.                                       |
| <b>Other information</b>                            |   |
| <b>Density</b>                                      | Not determined.                                       |
| <b>Explosive properties</b>                         | Not explosive.  |
| <b>Kinematic viscosity</b>                          | Not determined.                                       |
| <b>Molecular weight</b>                             | 45 g/mol  |
| <b>Oxidizing properties</b>                         | Not oxidizing.  |
| <b>Particle size</b>                                | Not applicable.                                       |
| <b>Percent volatile</b>                             | 100 %   |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.            |
| <b>Chemical stability</b>                 | Stable under normal temperature conditions and recommended use.  |
| <b>Possibility of hazardous reactions</b> | Polymerization will not occur. May form explosive mixture with air. This product may react with oxidizing agents.                              |
| <b>Conditions to avoid</b>                | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Strong oxidizing agents. Halogens. Nitrates.   |

**Hazardous decomposition products** Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Hydrocarbons.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

**Skin contact** Contact with liquefied gas may cause frostbite.

**Eye contact** Contact with liquefied gas may cause frostbite.

**Ingestion** This material is a gas under normal atmospheric conditions and ingestion is unlikely.

**Symptoms related to the physical, chemical and toxicological characteristics** Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves.

### Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

| Components  | Species  | Test Results            |
|---|--|-------------------------|
| Propane (CAS 74-98-6)   |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Inhalation</b>   |  |                         |
| Gas   |  |                         |
| LC50  | Rat  | > 80000 ppm, 15 Minutes |
| Propylene (CAS 115-07-1)  |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Inhalation</b>   |  |                         |
| Gas   |  |                         |
| LC50  | Rat  | > 65000 ppm, 4 Hours    |
| <b>Skin corrosion/irritation</b>                                      | Not classified.  |                         |
| <b>Serious eye damage/eye irritation</b>                              | Not classified.  |                         |
| <b>Respiratory or skin sensitization</b>                              |  |                         |
| <b>Respiratory sensitization</b>                                      | Not a respiratory sensitizer.  |                         |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.  |                         |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |                         |
| <b>Carcinogenicity</b>  | Not classifiable as to carcinogenicity to humans.  |                         |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         |  |                         |
| Propylene (CAS 115-07-1)  | 3 Not classifiable as to carcinogenicity to humans.  |                         |
| <b>NTP Report on Carcinogens</b>                                      |  |                         |
| Not listed.   |  |                         |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b> |  |                         |
| Not listed.   |  |                         |
| <b>Reproductive toxicity</b>  | This product is not expected to cause reproductive or developmental effects.                                     |                         |
| <b>Specific target organ toxicity - single exposure</b>               | Not classified.  |                         |
| <b>Specific target organ toxicity - repeated exposure</b>             | Not classified.  |                         |
| <b>Aspiration hazard</b>  | Not relevant, due to the form of the product.  |                         |
| <b>Chronic effects</b>  | Exposure over a long period of time may cause central nervous system effects.                                    |                         |



## 12. Ecological information

|  |  |
|--|--|
| <b>Ecotoxicity</b>                                       | The product is not expected to be hazardous to the environment.                                      |
| <b>Persistence and degradability</b>                     | Not relevant, due to the form of the product.  |
| <b>Bioaccumulative potential</b>                         | Not relevant, due to the form of the product.  |
| <b>Partition coefficient n-octanol / water (log Kow)</b> |  |
| Propane (CAS 74-98-6)                                    | 2.36   |
| Propylene (CAS 115-07-1)                                 | 1.77   |
| <b>Mobility in soil</b>                                  | Not relevant, due to the form of the product.  |
| <b>Other adverse effects</b>                             | The product contains volatile organic compounds which have a photochemical ozone creation potential. |

## 13. Disposal considerations

|  |   |
|--|---|
| <b>Disposal instructions</b>                 | Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations. |
| <b>Local disposal regulations</b>            | Dispose of in accordance with local regulations.  |
| <b>Hazardous waste code</b>                  | D001: Waste Flammable material with a flash point <140 °F<br>The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Waste from residues / unused products</b> | Dispose in accordance with all applicable regulations.  |
| <b>Contaminated packaging</b>                | Empty containers should be taken to an approved waste handling site for recycling or disposal.  |

## 14. Transport information

### DOT

|                                     |   |
|-------------------------------------|---|
| <b>UN number</b>                    | UN1075  |
| <b>UN proper shipping name</b>      | Petroleum gases, liquefied  |
| <b>Transport hazard class(es)</b>   |   |
| <b>Class</b>                        | 2.1   |
| <b>Subsidiary risk</b>              | -   |
| <b>Label(s)</b>                     | 2.1   |
| <b>Packing group</b>                | -   |
| <b>Environmental hazards</b>        |   |
| <b>Marine pollutant</b>             | No  |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Special provisions</b>           | T50   |
| <b>Packaging exceptions</b>         | 306   |
| <b>Packaging non bulk</b>           | 304   |
| <b>Packaging bulk</b>               | 314, 315  |

### IATA

|                                     |   |
|-------------------------------------|---|
| <b>UN number</b>                    | UN1075  |
| <b>UN proper shipping name</b>      | Petroleum gases, liquefied  |
| <b>Transport hazard class(es)</b>   |   |
| <b>Class</b>                        | 2.1   |
| <b>Subsidiary risk</b>              | -   |
| <b>Packing group</b>                | -   |
| <b>Environmental hazards</b>        | No  |
| <b>ERG Code</b>                     | 10L   |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |

### IMDG

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>UN number</b>                  | UN1075                     |
| <b>UN proper shipping name</b>    | PETROLEUM GASES, LIQUEFIED |
| <b>Transport hazard class(es)</b> |                            |
| <b>Class</b>                      | 2.1                        |
| <b>Subsidiary risk</b>            | -                          |
| <b>Packing group</b>              | -                          |
| <b>Environmental hazards</b>      |                            |
| <b>Marine pollutant</b>           | No                         |

EmS

E-D, S-U

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 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.

### CERCLA Hazardous Substance List (40 CFR 302.4)

|                               |         |
|-------------------------------|---------|
| Butane (CAS 106-97-8)         | Listed. |
| Ethyl mercaptan (CAS 75-08-1) | Listed. |
| Propane (CAS 74-98-6)         | Listed. |
| Propylene (CAS 115-07-1)      | Listed. |

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

**Toxic Substances Control Act (TSCA)** All components of the mixture on the TSCA 8(b) inventory are designated "active".

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)  
Gas under pressure  
Simple asphyxiant  
Hazard not otherwise classified (HNOC)

#### SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|---------------|------------|----------|
| Propylene     | 115-07-1   | 0 - 10   |

### 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)

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### US. New Jersey Worker and Community Right-to-Know Act

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### US. Pennsylvania Worker and Community Right-to-Know Law

Butane (CAS 106-97-8)

Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### US. Rhode Island RTK

Butane (CAS 106-97-8)  
Ethyl mercaptan (CAS 75-08-1)  
Propane (CAS 74-98-6)  
Propylene (CAS 115-07-1)

#### 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](http://www.P65Warnings.ca.gov).

#### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Butane (CAS 106-97-8)  
Propylene (CAS 115-07-1)

#### International Inventories

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia                   | Australian Inventory of Industrial Chemicals (AICIS)                   | 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) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| Korea                       | Existing Chemicals List (ECL)  | Yes                    |
| 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 05-May-2014  
Revision date 21-March-2021  
Version # 03  
HMIS® ratings Health: 2  
Flammability: 4  
Physical hazard: 3

#### NFPA ratings



#### Disclaimer

All information in this Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.



# PROPANE

## Safety Data Sheet

### 1. IDENTIFICATION

Product identifier

Product Name PROPANE

Other means of identification

Safety data sheet number IOC-P105 UN1978

UN/ID no. Dimethylmethane

Synonyms

Recommended use of the chemical and restrictions on use

Recommended Use Industrial and professional use.

Uses advised against Consumer use

**Details of the supplier of the safety data sheet**

Indiana Oxygen Company

6099 W. Corporate Way

Indianapolis, IN 46278

Phone: 317-290-0003

[www.indianaoxygen.com](http://www.indianaoxygen.com)

\* May include subsidiaries or affiliate companies/divisions.

For additional product information contact your local customer service.

Emergency telephone number

Company Phone Number 1-800-535-5053 (Infotrak)

### 2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

|                      |               |
|----------------------|---------------|
| Flammable gases      | Category 1    |
| Gases under pressure | Liquefied gas |
| Simple asphyxiants   | Yes           |

Label elements

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  
 May cause frostbite

## Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Use and store only outdoors or in a well ventilated place  
 Use backflow preventive device in piping  
 Do not open valve until connected to equipment prepared for use  
 Close valve after each use and when empty  
 Never put cylinders into unventilated areas of passenger vehicles

## Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical attention/advice.  
 IF ON SKIN: Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention.  
 Leaking gas fire: do not extinguish, unless leak can be stopped safely  
 Eliminate all ignition sources if safe to do so

## Precautionary Statements - Storage

Protect from sunlight when ambient temperature exceeds 52°C/125°F

Hazards not otherwise classified (HNOC)

Not applicable

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Volume % | Chemical Formula              |
|---------------|---------|----------|-------------------------------|
| Propane       | 74-98-6 | 100      | C <sub>3</sub> H <sub>8</sub> |

## 4. FIRST AID MEASURES

### Description of first aid measures

|                                    |  |
|------------------------------------|--|
| General advice                     | Show this safety data sheet to the doctor in attendance.   |
| Inhalation                         | Remove to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.  |
| Skin contact                       | For dermal contact or suspected frostbite, remove contaminated clothing and flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physician should see the patient promptly if contact with the product has resulted in blistering of the dermal surface or in deep tissue freezing. |
| Eye contact                        | If frostbite is suspected, flush eyes with cool water for 15 minutes and obtain immediate medical attention.   |
| Ingestion                          | Not an expected route of exposure.   |
| Self-protection of the first aider | RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Remove all sources of ignition.   |

### Most important symptoms and effects, both acute and delayed

|          |   |
|----------|---|
| Symptoms | High concentrations may cause asphyxia from lack of oxygen or act as a narcotic causing central nervous system depression. May cause nausea, dizziness, headaches, shortness of breath, lethargy, narcosis, unconsciousness and possibly cardiac arrhythmias. Contact with liquid may cause cold burns/frostbite. |
|----------|---|

### Indication of any immediate medical attention and special treatment needed

|                    |  |
|--------------------|--|
| Note to physicians | A patient adversely affected by exposure to this product should not be given adrenaline (epinephrine) or similar heart stimulant since these would increase the risk of cardiac arrhythmias. |
|--------------------|--|

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Dry chemical or CO<sub>2</sub>. Water spray (fog). DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

### Specific extinguishing methods

If possible, stop the flow of gas. Do not extinguish the fire until supply is shut off as otherwise an explosive-ignition may occur. If the fire is extinguished and the flow of gas continues, use increased ventilation to prevent build-up of explosive atmosphere. Ventilation fans must be explosion proof. Use non-sparking tools to close container valves.

Use water spray to cool surrounding containers. Be cautious of a Boiling Liquid Evaporating Vapor Explosion, BLEVE, if flame is impinging on surrounding containers. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Damaged cylinders should be handled only by specialists.

### Specific hazards arising from the chemical

Extremely flammable gas. May form explosive mixtures with air. Will be easily ignited by heat, sparks or flames. Vapors may travel to source of ignition and flash back. Vapors from liquefied gas are initially heavier than air and spread along ground. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Cylinders may rupture under extreme heat.

Hazardous combustion products      Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

### 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. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Consider the risk of potentially explosive atmospheres. Monitor oxygen level. All equipment used when handling the product must be grounded. Use non-sparking tools and equipment. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

**Other Information** Gas/vapor is heavier than air. Prevent from entering sewers, basements and workpits, or any place where accumulation may be dangerous.

### Environmental precautions

**Environmental precautions** Prevent spreading of vapors through sewers, ventilation systems and confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. If leak is in container or container valve, contact the appropriate emergency telephone number in Section 1 or call your closest Indiana Oxygen location.

**Methods for cleaning up** Do not direct water at spill or source of leak. Return cylinder to Indiana Oxygen Company or an authorized distributor.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking and explosion proof. Separate flammable gas cylinders from oxygen and other oxidizers by a minimum distance of 20 ft. or by a 5 ft. high barrier with a minimum fire resistance rating of a half an hour. NO SMOKING" signs should be posted in storage and use areas.

Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distance, use a cart designed to transport cylinders. Never attempt to lift a cylinder by its valve protection cap. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing leak to occur. Use an adjustable strap wrench to remove over-tight or rusted caps. Use only with adequate ventilation. Use backflow preventive device in piping. Use only with equipment rated for cylinder pressure. Close valve after each use and when empty. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Ensure the complete gas system has been checked for leaks before use.

Never put cylinders into trunks of cars or unventilated areas of passenger vehicles. Never attempt to refill a compressed gas cylinder without the owner's written consent. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit.

Only experienced and properly instructed persons should handle gases under pressure. Always store and handle compressed gas cylinders in accordance with Compressed Gas Association, pamphlet CGA-P1, Safe Handling of Compressed Gases in Containers.

### Conditions for safe storage, including any incompatibilities

|                        |  |
|------------------------|--|
| Storage Conditions     | Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Keep at temperatures below 52°C / 125°F. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Stored containers should be periodically checked for general condition and leakage. Outside or detached storage is preferred. |
| Incompatible materials | Oxidizing agents.  |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

| Chemical Name      | ACGIH TLV     | OSHA PEL                                     | NIOSH IDLH   |
|--------------------|---------------|--|--|
| Propane<br>74-98-6 | TWA: 1000 ppm | TWA: 1000 ppm<br>TWA: 1800 mg/m <sup>3</sup> | IDLH: 2100 ppm<br>TWA: 1000 ppm<br>TWA: 1800 mg/m <sup>3</sup> |

*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.*

|                   |   |
|-------------------|---|
| 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 | Local exhaust ventilation to prevent accumulation of high concentrations and maintain air-oxygen levels at or above 19.5%. Explosion proof ventilation systems. Oxygen detectors should be used when asphyxiating gases may be released. Consider installation of leak detection systems in areas of use and storage. Systems under pressure should be regularly checked for leakages. Showers. Eyewash stations. |
|----------------------|---|

### Individual protection measures, such as personal protective equipment

|                                |   |
|--------------------------------|---|
| Eye/face protection            | Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear: Goggles. Face-shield.  |
| Skin and body protection       | Work gloves and safety shoes are recommended when handling cylinders. Wear cold insulating gloves when handling liquid. Wear fire/flame resistant/retardant clothing. Take precautionary measures against static discharge.   |
| Respiratory protection         | If exposure limits are exceeded or 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. |
| General Hygiene Considerations | Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes, on skin, or on clothing.   |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Compressed gas           |
| Appearance     | Colorless.               |
| Odor           | Odorless.                |
| Odor threshold | No information available |
| pH             | No data available        |
| Melting point  | No data available        |



|                           |                   |
|---------------------------|-------------------|
| Evaporation rate          | Not applicable    |
| Fire Hazard               | Yes               |
| Lower flammability limit: | 2.2%              |
| Upper flammability limit: | 9.5%              |
| Flash point               | -104 °C / -156 °F |
| Autoignition temperature  | 450 °C / 842 °F   |
| Decomposition temperature | No data available |
| Water solubility          | Negligible        |
| Partition coefficient     | 2.3               |
| Kinematic viscosity       | Not applicable    |

| Chemical Name | Molecular weight | Boiling point | Vapor Pressure   | Vapor density (air =1) | Gas Density Kg/m <sup>3</sup> @20°C | Critical Temperature |
|---------------|------------------|---------------|------------------|------------------------|-------------------------------------|----------------------|
| Propane       | 44.09            | -42.04 °C     | 8.39 bar @ 20 °C | 1.55                   | 1.858                               | 96.67 °C             |

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical stability

Stable under normal conditions.

### Explosion data

|                                  |       |
|----------------------------------|-------|
| Sensitivity to Mechanical Impact | None. |
| Sensitivity to Static Discharge  | Yes.  |

### Possibility of Hazardous Reactions

May form explosive mixtures with air.

### Conditions to avoid

Heat, flames and sparks.

### Incompatible materials

Oxidizing agents.

### Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

|              |  |
|--------------|--|
| Inhalation   | High concentrations of aliphatic hydrocarbon gases may cause CNS depression. Recent information suggest that C1-C4 aliphatic (alkane) hydrocarbon gases can cause potentially fatal cardiac arrhythmias. Cardiac sensitization to adrenalin in dogs has been noted following inhalation. In dogs, the heart is more sensitive to epinephrine induced ventricular fibrillations following exposure to 15-90% propane for 10 minutes. Ventricular fibrillations have been reported in humans following inhalation of n-butane. |
| Skin contact | Contact with liquid may cause cold burns/frostbite.  |
| Eye contact  | Contact with liquid may cause cold burns/frostbite.  |
| Ingestion    | Not an expected route of exposure.   |

### Information on toxicological effects

Symptoms High concentrations may cause asphyxia from lack of oxygen or act as a narcotic causing central nervous system depression. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

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

Irritation Not classified.  
 Sensitization Not classified.  
 Germ cell mutagenicity Not classified.  
 Carcinogenicity This product does not contain any carcinogens or potential carcinogens listed by OSHA, IARC or NTP.  
 Reproductive toxicity Not classified.  
 STOT - single exposure Not classified.  
 STOT - repeated exposure Not classified.  
 Chronic toxicity None known.  
 Target Organ Effects Central nervous system (CNS).  
 Aspiration hazard Not applicable.

Numerical measures of toxicity

| Chemical Name      | Oral LD50 | Dermal LD50 | Inhalation LC50      | Inhalation LC50 (CGA P-20) |
|--------------------|-----------|-------------|----------------------|----------------------------|
| Propane<br>74-98-6 | -         | -           | = 658 mg/L (Rat) 4 h | -                          |

Product Information

Oral LD50 No information available.  
 Dermal LD50 No information available.  
 Inhalation LC50 No information available  
 Inhalation LC50

## 12. ECOLOGICAL INFORMATION

Ecotoxicity

No known acute aquatic toxicity.

Persistence and degradability

No information available.

Bioaccumulation

Will not bioconcentrate.

| Chemical Name      | Partition coefficient |
|--------------------|-----------------------|
| Propane<br>74-98-6 | 2.3                   |

## 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Indiana Oxygen for proper disposal.

## 14. TRANSPORT INFORMATION

Note: In US and Canada, Petroleum gases, liquefied (UN1075), or Liquefied petroleum gas (UN1075) is also acceptable. Identification number used must be consistent on package markings, shipping papers and emergency response information.

DOT

|                                 |                      |
|---------------------------------|----------------------|
| UN/ID no.                       | UN1978               |
| Proper shipping name            | Propane              |
| Hazard Class                    | 2.1                  |
| Special Provisions              | 19, T50              |
| Description                     | UN1978, Propane, 2.1 |
| Emergency Response Guide Number | 115                  |

TDG

|                      |                      |
|----------------------|----------------------|
| UN/ID no.            | UN1978               |
| Proper shipping name | Propane              |
| Hazard Class         | 2.1                  |
| Description          | UN1978, Propane, 2.1 |

MEX

|                      |                      |
|----------------------|----------------------|
| UN/ID no.            | UN1978               |
| Proper shipping name | Propane              |
| Hazard Class         | 2.1                  |
| Description          | UN1978, Propane, 2.1 |

IATA

|                      |                      |
|----------------------|----------------------|
| UN/ID no.            | UN1978               |
| Proper shipping name | Propane              |
| Hazard Class         | 2.1                  |
| ERG Code             | 10L                  |
| Special Provisions   | A1                   |
| Description          | UN1978, Propane, 2.1 |

IMDG

|                      |                      |
|----------------------|----------------------|
| UN/ID no.            | UN1978               |
| Proper shipping name | Propane              |
| Hazard Class         | 2.1                  |
| EmS-No.              | F-D, S-U             |
| Description          | UN1978, Propane, 2.1 |

ADR

|                         |                             |
|-------------------------|-----------------------------|
| UN/ID no.               | UN1978                      |
| Proper shipping name    | Propane                     |
| Hazard Class            | 2.1                         |
| Classification code     | 2F                          |
| Tunnel restriction code | (B/D)                       |
| Special Provisions      | 652, 657, 660               |
| Description             | UN1978, Propane, 2.1, (B/D) |

|                                   |
|-----------------------------------|
| <b>15. REGULATORY INFORMATION</b> |
|-----------------------------------|

International Inventories

|               |          |
|---------------|----------|
| TSCA          | Complies |
| DSL           | Complies |
| EINECS/ELINCS | Complies |

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

US 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                       | Yes |
| Sudden release of pressure hazard | Yes |
| Reactive Hazard                   | No  |

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.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

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)

Risk and Process Safety Management Programs

This material, as supplied, contains one or more regulated substances with specified thresholds under 40 CFR Part 68 or regulated as a highly hazardous chemical pursuant to the 29 CFR Part 1910.110 with specified thresholds:

| Chemical Name | U.S. - CAA (Clean Air Act) -<br>Accidental Release Prevention<br>- Toxic Substances | U.S. - CAA (Clean Air Act) -<br>Accidental Release Prevention<br>- Flammable Substances | U.S. - OSHA - Process Safety<br>Management - Highly<br>Hazardous Chemicals |
|---------------|---|---|--|
| Propane       |   | 10000 lb  |  |

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 |
|--------------------|------------|---------------|--------------|
| Propane<br>74-98-6 | X          | X             | X            |

International Regulations

**16. OTHER INFORMATION**

NFPA                      Health hazards 2                      Flammability 4                      Instability 0                      Physical and Chemical Properties -

Note: Ratings were assigned in accordance with Compressed Gas Association (CGA) guidelines as published in CGA Pamphlet P-19-2009, CGA Recommended Hazard Ratings for Compressed Gases, 3rd Edition.

|               |                  |
|---------------|------------------|
| Issue Date    | 23-Feb-2015      |
| Revision Date | 28-Jul-2015      |
| Revision Note | Initial Release. |

General Disclaimer

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between Indiana Oxygen Company (or any of their affiliates and subsidiaries) and the purchaser.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

End of Safety Data Sheet


# SAFETY DATA SHEET

## Propane

### Section 1. Identification

|                                      |   |
|--------------------------------------|---|
| <b>GHS product identifier</b>        | : Propane   |
| <b>Chemical name</b>                 | : propane   |
| <b>Other means of identification</b> | : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant. |
| <b>Product type</b>                  | : Liquefied gas   |
| <b>Product use</b>                   | : Synthetic/Analytical chemistry.   |
| <b>Synonym</b>                       | : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant. |
| <b>SDS #</b>                         | : 001045  |
| <b>Supplier's details</b>            | : Airgas USA, LLC and its affiliates<br>259 North Radnor-Chester Road<br>Suite 100<br>Radnor, PA 19087-5283<br>1-610-687-5253   |
| <b>24-hour telephone</b>             | : 1-866-734-3438  |

### Section 2. Hazards identification

|   |  |
|---|--|
| <b>OSHA/HCS status</b>                            | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |
| <b>Classification of the substance or mixture</b> | : FLAMMABLE GASES - Category 1<br>GASES UNDER PRESSURE - Liquefied gas   |
| <b>GHS label elements</b>                         |  |
| <b>Hazard pictograms</b>                          | :   |
| <b>Signal word</b>                                | : Danger   |
| <b>Hazard statements</b>                          | : Extremely flammable gas.<br>May form explosive mixtures with air.<br>Contains gas under pressure; may explode if heated.<br>May cause frostbite.<br>May displace oxygen and cause rapid suffocation.   |
| <b>Precautionary statements</b>                   |  |
| <b>General</b>                                    | : 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. Always keep container in upright position. Approach suspected leak area with caution. |
| <b>Prevention</b>                                 | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.   |
| <b>Response</b>                                   | : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.   |
| <b>Storage</b>                                    | : Protect from sunlight. Store in a well-ventilated place.   |

## Section 2. Hazards identification

- Disposal** : Not applicable.
- Hazards not otherwise classified** : Liquid can cause burns similar to frostbite.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Substance
- Chemical name** : propane
- Other means of identification** : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
- Product code** : 001045

### CAS number/other identifiers

- CAS number** : 74-98-6

| Ingredient name | %   | CAS number |
|-----------------|-----|------------|
| Propane         | 100 | 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.**

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** : Wash contaminated skin with soap and 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. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, 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. As this product rapidly becomes a gas when released, refer to the inhalation section.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Liquid can cause burns similar to frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

## Section 4. First aid measures

- Frostbite** : Try to warm up the frozen tissues and seek medical attention.  
**Ingestion** : Ingestion of liquid can cause burns similar to frostbite.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:, frostbite  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:, frostbite  
**Ingestion** : Adverse symptoms may include the following:, frostbite

### 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)

## 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. The vapor/gas is heavier than air and will spread along the ground. 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.

- 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. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

## 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. Do not touch or walk through spilled material. 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.



## Section 6. Accidental release measures

**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. 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** : 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. Do not get in eyes or on skin or clothing. 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. 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

| <b>Ingredient name</b> | <b>Exposure limits</b>  |
|------------------------|---|
| Propane                | <p><b>NIOSH REL (United States, 10/2016).</b><br/>TWA: 1800 mg/m<sup>3</sup> 10 hours.<br/>TWA: 1000 ppm 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b><br/>TWA: 1800 mg/m<sup>3</sup> 8 hours.<br/>TWA: 1000 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>TWA: 1800 mg/m<sup>3</sup> 8 hours.<br/>TWA: 1000 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2017). Oxygen Depletion [Asphyxiant].</b></p> |

## 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: 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. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. 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.
- Thermal hazards** : If there is a risk of contact with the liquid, all protective equipment worn should be suitable for use with extremely low temperature materials.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Gas. [Compressed gas.]
- Color** : Colorless.
- Odor** : Odorless.BUT MAY HAVE SKUNK ODOR ADDED.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -187.6°C (-305.7°F)
- Boiling point** : -161.48°C (-258.7°F)

## Section 9. Physical and chemical properties

|   |   |
|---|---|
| <b>Critical temperature</b>                         | : 96.55°C (205.8°F)   |
| <b>Flash point</b>                                  | : Closed cup: -104°C (-155.2°F)<br>Open cup: -104°C (-155.2°F)  |
| <b>Evaporation rate</b>                             | : Not available.  |
| <b>Flammability (solid, gas)</b>                    | : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials. |
| <b>Lower and upper explosive (flammable) limits</b> | : Lower: 1.8%<br>Upper: 8.4%  |
| <b>Vapor pressure</b>                               | : 109 (psig)  |
| <b>Vapor density</b>                                | : 1.6 (Air = 1)   |
| <b>Specific Volume (ft<sup>3</sup>/lb)</b>          | : 8.6206  |
| <b>Gas Density (lb/ft<sup>3</sup>)</b>              | : 0.116 (25°C / 77 to °F)   |
| <b>Relative density</b>                             | : Not applicable.   |
| <b>Solubility</b>                                   | : Not available.  |
| <b>Solubility in water</b>                          | : 0.02 g/l  |
| <b>Partition coefficient: n-octanol/water</b>       | : 1.09  |
| <b>Auto-ignition temperature</b>                    | : 287°C (548.6°F)   |
| <b>Decomposition temperature</b>                    | : Not available.  |
| <b>Viscosity</b>                                    | : Not applicable.   |
| <b>Flow time (ISO 2431)</b>                         | : Not available.  |
| <b>Molecular weight</b>                             | : 44.11 g/mole  |
| <b><u>Aerosol product</u></b>                       |   |
| <b>Heat of combustion</b>                           | : -46012932 J/kg  |

## Section 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.   |
| <b>Chemical stability</b>                 | : The product is stable.   |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.  |
| <b>Conditions to avoid</b>                | : 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 gas to accumulate in low or confined areas. |
| <b>Incompatible materials</b>             | : Oxidizers  |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.   |
| <b>Hazardous polymerization</b>           | : 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** : Liquid can cause burns similar to frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
- Ingestion** : Ingestion of liquid can cause burns similar to frostbite.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:, frostbite
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:, frostbite
- Ingestion** : Adverse symptoms may include the following:, frostbite

### 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.

## Section 11. Toxicological information

### Potential chronic health effects

Not available.

|                              |   |
|------------------------------|---|
| <b>General</b>               | : No known significant effects or critical hazards. |
| <b>Carcinogenicity</b>       | : No known significant effects or critical hazards. |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards. |
| <b>Teratogenicity</b>        | : No known significant effects or critical hazards. |
| <b>Developmental effects</b> | : No known significant effects or critical hazards. |
| <b>Fertility effects</b>     | : 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 <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Propane                 | 1.09               | -   | low       |

### Mobility in soil






**Soil/water partition coefficient (K<sub>oc</sub>)** : 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   |
|-----------------------------------|--|--|--|--|--|
| <b>UN number</b>                  | UN1978   | UN1978   | UN1978   | UN1978   | UN1978   |
| <b>UN proper shipping name</b>    | PROPANE  | PROPANE  | PROPANE  | PROPANE  | PROPANE  |
| <b>Transport hazard class(es)</b> | 2.1<br> | 2.1<br> | 2.1<br> | 2.1<br> | 2.1<br> |
| <b>Packing group</b>              | -  | -  | -  | -  | -  |
| <b>Environmental hazards</b>      | 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.

**Packaging instruction**  
**Passenger aircraft**  
Quantity limitation: Forbidden.

**Cargo aircraft**  
Quantity limitation: 150 kg

**Special provisions**  
19, T50

For domestic transportation only, UN1075 may be substituted for the UN number shown as long as the substitution is consistent on package markings, shipping papers, and emergency response information. See 49 CFR 172.102 Special Provision 19.

Containers of NON-ODORIZED liquefied petroleum gas must be marked either NON-ODORIZED or NOT ODORIZED as of September 30, 2006. [49 CFR 172.301(f), 326(d), 330(c) and 338(e)]

**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  
**ERAP Index** 3000  
**Passenger Carrying Ship Index** 65  
**Passenger Carrying Road or Rail Index** Forbidden  
**Special provisions** 29, 42

**IATA** : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. 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 Annex II of MARPOL and the IBC Code** : 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:** propane

**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.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

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):** This material is listed or exempted.  
**Japan inventory (ISHL):** This material is listed or exempted.

**Malaysia** : This material is listed or exempted.

**New Zealand** : This material is listed or exempted.

**Philippines** : This material is listed or exempted.

**Republic of Korea** : This material is listed or exempted.

## Section 15. Regulatory information

|                      |  |
|----------------------|--|
| <b>Taiwan</b>        | : This material is listed or exempted. |
| <b>Thailand</b>      | : Not determined.                      |
| <b>Turkey</b>        | : This material is listed or exempted. |
| <b>United States</b> | : This material is listed or exempted. |
| <b>Viet Nam</b>      | : Not determined.                      |

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

|                  |   |   |
|------------------|---|---|
| Health           | / | 2 |
| 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.)



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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         | Expert judgment |
| GASES UNDER PRESSURE - Liquefied gas | Expert judgment |

### History

|                                       |             |
|---------------------------------------|-------------|
| <b>Date of printing</b>               | : 5/6/2018  |
| <b>Date of issue/Date of revision</b> | : 5/6/2018  |
| <b>Date of previous issue</b>         | : 6/28/2017 |
| <b>Version</b>                        | : 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                      |
| : MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 |



## Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### References

: Not available.

### Other special considerations

: The information below is given to call attention to the issue of "Naturally occurring radioactive materials". Although Radon-222 levels in the product represented by this MSDS do not present any direct Radon exposure hazard, customers should be aware of the potential for Radon daughter build up within their processing systems, whatever the source of their product streams. Radon-222 is a naturally occurring radioactive gas which can be a contaminant in natural gas. During subsequent processing, Radon tends to be concentrated in Liquefied Petroleum Gas streams and in product streams having a similar boiling point range. Industry experience has shown that this product may contain small amounts of Radon-222 and its radioactive decay products, called Radon "daughters". The actual concentration of Radon-222 and radioactive daughters in the delivered product is dependent on the geographical source of the natural gas and storage time prior to delivery. Process equipment (i.e. lines, filters, pumps and reaction units) may accumulate significant levels of radioactive daughters and show a gamma radiation reading during operation. A potential external radiation hazard exists at or near any pipe valve or vessel containing a Radon enriched stream, or containing internal deposits of radioactive material due to the transmission of gamma radiation through its wall. Field studies reported in the literature have not shown any conditions that subject workers to cumulative exposures in excess of general population limits. Equipment emitting gamma radiation should be presumed to be internally contaminated with alpha emitting decay products which may be a hazard if inhaled or ingested. Protective equipment such as coveralls, gloves, and respirator (NIOSH/MHSA approved for high efficiency particulates and radionuclides, or supplied air) should be worn by personnel entering a vessel or working on contaminated process equipment to prevent skin contamination, ingestion, or inhalation of any residues containing alpha radiation. Airborne contamination may be minimized by handling scale and/or contaminated materials in a wet state.

### 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

Sid Harvey item # T643-2

SDS # Z0224

### Section 1 – Product & Company Identification

Product Name:  
RIDGID Nu-Clear Thread Cutting Oil (United States)

Product Catalog No.:  
11461, 11481, 41575, 41585, 42513, 70835

Recommended Use:  
Thread Cutting

Restrictions on Use:  
Industrial use only

Company Information:

|  |  |
|--|--|
| <u>North America</u><br>Ridge Tool Company<br>400 Clark Street<br>Elyria, Ohio 44035-6001<br>1-800-519-3456<br>(8:00 am – 5:00 pm EST, M-F)<br>Emergency Telephone<br>call 9-1-1 or local emergency number<br>www.RIDGID.com | <u>Australia</u><br>Ridge Tool Australia<br>127 Metrolink Circuit<br>Campbellfield, VIC 3061<br>1-800-743-443<br>(8:30 am – 5:00 pm AEST, M-F)<br>Emergency Telephone<br>call 000 or local emergency number<br>www.RIDGID.com.au |
|--|--|

Issue Date: May 2, 2018

Revision: K

• Français – 11  
• Castellano – pág. 21



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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## Section 2 – Hazards Identification

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### Hazard Classification

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

### Label Elements

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** Not applicable

**Precautionary Statements:** Not applicable

**Other hazards which do not result in GHS classification:** None.

---

## Section 3 – Composition / Information On Ingredients

---

**General information:** This product does not contain silicone or chlorinated additives.

### Hazardous Component(s):

| Chemical name | CAS-No.      | Concentration |
|---------------|--------------|---------------|
| Mineral oil   | Confidential | 20 - <50%     |
| Paraffin oils | Confidential | 20 - <50%     |
| Vegetable oil | Confidential | 1 - <5%       |

Specific chemical identities and/or exact percentages have been withheld as trade secrets.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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### **Section 4 – First Aid Measures**

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**Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

**Inhalation:** Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.

**Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

#### **Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

#### **Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

---

### **Section 5 – Fire Fighting Measures**

---

**General Fire Hazards:** No unusual fire or explosion hazards noted.

#### **Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

#### **Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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### **Section 6 – Accidental Release Measures**

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|   |  |
|---|--|
| <b>Personal precautions, protective equipment and emergency procedures:</b> | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation. |
| <b>Methods and material for containment and cleaning up:</b>                | Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.   |
| <b>Environmental Precautions:</b>   | Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.   |

---

### **Section 7 – Handling And Storage**

---

|  |  |
|--|--|
| <b>Precautions for safe handling:</b>                                | Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. |
| <b>Conditions for safe storage, including any incompatibilities:</b> | Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials. Shelf Life: 720 Days                            |



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 8 – Exposure Controls / Personal Protection**

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**Exposure Limits**

| Chemical name                        | Type | Exposure Limit Values | Source  |
|--------------------------------------|------|-----------------------|---|
| Mineral oil - Mist.                  | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (01 2017) |
| Mineral oil - Mist.                  | TWA  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)                              |
| Paraffin oils - Inhalable fraction.  | TWA  | 5 mg/m <sup>3</sup>   | US. ACGIH Threshold Limit Values (03 2014)                                  |
| Paraffin oils - Mist.                | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Paraffin oils - Mist.                | TWA  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)                              |
| Vegetable oil - Total dust.          | PEL  | 15 mg/m <sup>3</sup>  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Respirable fraction. | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |

- Protective Measures:** Use personal protective equipment as required.
- Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.
- Eye Protection:** Wear safety glasses with side shields (or goggles).
- Skin and Body Protection:** Wear protective clothing appropriate for the risk of exposure. Be aware of other hazards such as rotating parts. Contact health and safety professional or manufacturer for specific information.
- Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

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**Section 9 – Physical And Chemical Properties**

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**Appearance**

- Physical state:** Liquid
- Form:** No data available.
- Color:** Yellow
- Odor:** Mild petroleum/solvent
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** No data available.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

|  |   |
|--|---|
| <b>Initial boiling point and boiling range:</b>              | No data available.                            |
| <b>Flash Point:</b>  | 196.11 °C (385.00 °F)                         |
| <b>Evaporation rate:</b>                                     | No data available.                            |
| <b>Flammability (solid, gas):</b>                            | No data available.                            |
| <b>Upper/lower limit on flammability or explosive limits</b> |   |
| <b>Flammability limit - upper (%):</b>                       | No data available.                            |
| <b>Flammability limit - lower (%):</b>                       | No data available.                            |
| <b>Explosive limit - upper (%):</b>                          | No data available.                            |
| <b>Explosive limit - lower (%):</b>                          | No data available.                            |
| <b>Vapor pressure:</b>                                       | No data available.                            |
| <b>Vapor density:</b>  | No data available.                            |
| <b>Relative density:</b>                                     | 0.878   |
| <b>Solubility(ies)</b>                                       |   |
| <b>Solubility in water:</b>                                  | Insoluble                                     |
| <b>Solubility (other):</b>                                   | No data available.                            |
| <b>Partition coefficient (n-octanol/water):</b>              | No data available.                            |
| <b>Auto-ignition temperature:</b>                            | No data available.                            |
| <b>Decomposition temperature:</b>                            | No data available.                            |
| <b>Viscosity:</b>  | 43 mm <sup>2</sup> /s (40 °C, Measured)       |
| <b>Other information</b>                                     |   |
| <b>VOC:</b>  | 1.1 % (Method 24)<br>9.4 g/l (ASTM E 1868-10) |

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**Section 10 – Stability And Reactivity**

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|  |   |
|--|---|
| <b>Reactivity:</b>                         | Not reactive during normal use.   |
| <b>Chemical Stability:</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions:</b> | None under normal conditions.   |
| <b>Conditions to avoid:</b>                | Avoid heat or contamination.  |
| <b>Incompatible Materials:</b>             | No data available.  |
| <b>Hazardous Decomposition Products:</b>   | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

---

**Section 11 – Toxicological Information**

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**Information on likely routes of exposure**

**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Inhalation:** Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

**Skin Contact:** Prolonged skin contact may cause redness and irritation.

**Eye contact:** Eye contact is possible and should be avoided.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** Not classified for acute toxicity based on available data.

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified





**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

---

**Section 12 – Ecological Information**

---

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

---

**Section 13 – Disposal Consideration**

---

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 14 – Transportation Information**

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**DOT**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

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**Section 15 – Regulatory Information**

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**US Federal Regulations**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 16 – Other Information**

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Prepared by: . . . . . Ridge Tool Company (Operating Standard 6-101)

Issue Date: . . . . . May 2, 2018

Last Revision Date: . . . . . March 8, 2017

RIDGE TOOL BELIEVES THE STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE RELIABLE BUT THEY ARE GIVEN WITHOUT WARRANTY OR GUARANTEE OF ANY KIND, EXPRESSED OR IMPLIED, AND WE ASSUME NO RESPONSIBILITY FOR ANY LOSS, DAMAGE OR EXPENSE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THEIR USE.

## FICHE SANTÉ/SÉCURITÉ

---

### 1 – Identification du produit et du fournisseur

---

Produit:  
RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)

Réf. catalogue:  
11461, 11481, 41575, 41585, 42513, 70835

Emploi recommandé:  
Filetage mécanique

Restrictions d'utilisation:  
Usage industriel seulement

Fournisseur:

|  |
|--|
| <p><u>North America</u><br/>Ridge Tool Company<br/>400 Clark Street<br/>Elyria, Ohio 44035-6001<br/>1-800-519-3456<br/>(Etats-Unis) (du lundi au vendredi de 8h<br/>à 17h EST)<br/>Téléphone d'urgence:<br/>composer le 9-1-1 ou appeler les<br/>services d'urgences appropriés<br/><a href="http://www.RIDGID.com">www.RIDGID.com</a></p> |
|--|

Date de publication: le 2 mai 2018

Révision K

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

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**2 – Identification des risques**

---

**Classe de Danger**

Ce produit est classé comme non dangereux selon la norme américaine OSHA 29CFR 1910.1200 (HazCom 2012)

**Éléments d'Étiquetage**

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Symbole de Danger:</b>       | Aucun symbole         |
| <b>Mention d'Avertissement:</b> | Aucun mot indicateur. |
| <b>Mention de Danger:</b>       | Non applicable        |
| <b>Conseils de Prudence</b>     | Non applicable        |

**Autres dangers ne donnant pas lieu à classement selon le SGH:** Aucun(e).

---

**3 – Composition du produit et renseignements sur ses ingrédients**

---

**Informations générales:** Ce produit ne contient pas de silicone ou d'additifs chlorés.

**Composant(s) dangereux:**

| Désignation chimique | N° CAS       | Concentration |
|----------------------|--------------|---------------|
| Mineral oil          | Confidentiel | 20 - <50%     |
| Paraffin oils        | Confidentiel | 20 - <50%     |
| Vegetable oil        | Confidentiel | 1 - <5%       |

Les identités chimiques spécifiques et/ou les pourcentages exacts ont été refusées comme les secrets commerciaux.

---

**4 – Premiers soins**

---

|                              |  |
|------------------------------|--|
| <b>Ingestion:</b>            | Rincer soigneusement la bouche. Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise. NE PAS faire vomir.   |
| <b>Inhalation:</b>           | Transporter à l'air frais. Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise.  |
| <b>Contact avec la Peau:</b> | Enlever les vêtements et les chaussures contaminés. Laver les zones de contact à l'eau et au savon. En cas d'irritation cutanée: consulter un médecin. |

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

---

**Contact oculaire:** Rincer avec soin à l'eau. En cas d'irritation, consulter un médecin. Continuer à rincer pendant au moins 15 minutes.

**Symptômes/effets les plus importants, aigus et différés**

**Symptômes:** Aucune information disponible.

**Indication d'un besoin médical immédiat et traitement spécial requis**

**Traitement:** Consulter un médecin en cas de symptômes.

---

**5 – Lutte contre les incendies**

---

**Dangers d'Incendie Généraux:** Aucun risque exceptionnel d'incendie et d'explosion.

**Moyens d'extinction appropriés (et inappropriés)**

**Moyens d'extinction appropriés:** Eau pulvérisée, brouillard, CO<sub>2</sub>, agent chimique sec ou mousse standard. Choisir le moyen d'extinction de l'incendie en tenant compte d'autres produits chimiques éventuels.

**Moyens d'extinction inappropriés:** Ne pas lutter contre l'incendie au jet d'eau pour ne pas propager les flammes.

**Dangers spécifiques dus au produit chimique:** La chaleur peut provoquer l'explosion des récipients. En cas d'incendie, des gaz dangereux pour la santé peuvent se former.

**Équipement de protection spécial et précautions pour les pompiers**

**Procédures spéciales de lutte contre l'incendie:** Aucune information disponible.

**Équipement de protection spécial pour le personnel préposé à la lutte contre le feu:** Les pompiers doivent porter un équipement de protection standard, notamment vêtement ignifuge, casque à masque facial, gants, bottes en caoutchouc et, dans les espaces clos, un appareil respiratoire autonome.

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

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**6 – Lutte contre les déversements accidentels**

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|   |   |
|---|---|
| <b>Précautions individuelles, équipement de protection et procédures d'urgence:</b> | Voir l'équipement de protection individuelle à la Section 8. Ne pas toucher les récipients endommagés ou le produit déversé à moins de porter les vêtements de protection appropriés. Maintenir à distance le personnel non autorisé. Assurer une ventilation adéquate. |
| <b>Méthodes et matériel de confinement et de nettoyage:</b>                         | Absorber le produit avec du sable ou un autre absorbant inerte. Arrêter le débit de matière, si ceci est sans risque.   |
| <b>Précautions pour la Protection de l'Environnement:</b>                           | Éviter le rejet dans l'environnement. Ne pas contaminer les sources d'eau ou les égouts. Endiguer la fuite ou le déversement si cela peut être fait sans danger.  |

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**7 – Manipulation et stockage**

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|  |  |
|--|--|
| <b>Précautions à prendre pour une manipulation sans danger:</b>                | Se conformer aux bonnes pratiques d'hygiène industrielle. Porter un équipement de protection personnelle approprié. N'exposez pas à la chaleur intense comme le produit peut développer et pressuriser le récipient. |
| <b>Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités:</b> | Conserver dans le récipient d'origine hermétiquement fermé. Éviter tout contact avec des agents comburants. Conserver à l'écart des matières incompatibles. Durée de conservation: 720 jours                         |

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

**8 – Risques d'exposition et protection individuelle**

**Limites d'Exposition**

| Désignation chimique                 | Type | Valeurs Limites d'Exposition | Source  |
|--------------------------------------|------|------------------------------|---|
| Mineral oil - Brouillard             | PEL  | 5 mg/m <sup>3</sup>          | Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (01 2017) |
| Mineral oil - Brouillard             | TWA  | 5 mg/m <sup>3</sup>          | Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (1989)    |
| Paraffin oils - Fraction inhalable.  | TWA  | 5 mg/m <sup>3</sup>          | Les Etats-Unis. Valeurs de Limite de Seuil d'ACGIH (03 2014)  |
| Paraffin oils - Brouillard           | PEL  | 5 mg/m <sup>3</sup>          | Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (02 2006) |
| Paraffin oils - Brouillard           | TWA  | 5 mg/m <sup>3</sup>          | Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (1989)    |
| Vegetable oil - poussière totales    | PEL  | 15 mg/m <sup>3</sup>         | Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Fraction alvéolaire. | PEL  | 5 mg/m <sup>3</sup>          | Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (02 2006) |

**Mesures de protection:**

Utiliser l'équipement de protection individuel requis.

**Protection respiratoire:**

En cas de ventilation insuffisante, porter un appareil respiratoire approprié. Demander l'avis du superviseur sur les normes de protection respiratoire de la société.

**Protection des Yeux:**

Porter des lunettes de sécurité à écrans latéraux ou des lunettes étanches.

**Protection de la peau et du corps:**

Porter des vêtements de protection appropriés au risque d'exposition. Soyez conscient des autres dangers tels que les pièces en rotation. Contacter un professionnel de la santé et de la sécurité ou un fabricant pour obtenir des informations spécifiques.

**Mesures d'hygiène:**

Toujours adopter de bonnes pratiques d'hygiène personnelle, telles que lavage après manipulation de la substance et avant de manger, de boire ou de fumer. Laver régulièrement la tenue de travail pour éliminer les contaminants. Mettre au rebut les chaussures qui ne peuvent pas être lavées.



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**9 – Caractéristiques physiques et chimiques**

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**Aspect****État:**

Liquide

**Forme:**

Aucune information disponible.

**Couleur:**

Jaune

**Odeur:**

Légère, Pétrole/solvant

**Seuil de perception de l'odeur:**

Aucune information disponible.

**pH:**

Aucune information disponible.

**Point de fusion/point de congélation:**

Aucune information disponible.

**Température d'ébullition initiale et intervalle d'ébullition:**

Aucune information disponible.

**Point d'éclair:**

196.11 °C (385.00 °F)

**Taux d'évaporation:**

Aucune information disponible.

**Inflammabilité (solide, gaz):**

Aucune information disponible.

**Limites supérieures/inférieures d'inflammabilité ou d'explosivité****Limites d'inflammabilité - supérieure (%):**

Aucune information disponible.

**Limites d'inflammabilité - inférieure (%):**

Aucune information disponible.

**Limites d'explosivité - supérieure (%) :**

Aucune information disponible.

**Limites d'explosivité - inférieure (%):**

Aucune information disponible.

**Pression de vapeur:**

Aucune information disponible.

**Densité de vapeur:**

Aucune information disponible.

**Densité relative:**

0.878

**Solubilités****Solubilité dans l'eau:**

Insoluble

**Solubilité (autre):**

Aucune information disponible.

**Coefficient de partition (n-octanol/eau):**

Aucune information disponible.

**Température d'auto-inflammation:**

Aucune information disponible.

**Température de décomposition:**

Aucune information disponible.

**Viscosité:**43 mm<sup>2</sup>/s (40 °C, Mesurée)**AUTRES INFORMATIONS****VOC:**

1.1 % (Method 24)

9.4 g/l (ASTM E 1868-10)

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

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**10 – Stabilité et réactivité**

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|  |   |
|--|---|
| <b>Réactivité:</b>                           | Non réactif pendant l'utilisation normale.  |
| <b>Stabilité Chimique:</b>                   | Ce produit est stable dans des conditions normales.   |
| <b>Possibilité de Réactions Dangereuses:</b> | Aucun(e)(s) dans les conditions normales.   |
| <b>Conditions à Éviter:</b>                  | Éviter tout chauffage ou contamination.   |
| <b>Matières Incompatibles:</b>               | Aucune information disponible.  |
| <b>Produits de Décomposition Dangereux:</b>  | La décomposition thermique ou la combustion peut libérer des oxydes de carbone et d'autres gaz ou vapeurs toxiques. |

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**11 – Données toxicologiques**

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**Informations sur les voies d'exposition probables**

|                              |   |
|------------------------------|---|
| <b>Ingestion:</b>            | Peut être ingéré par accident. L'ingestion peut provoquer irritation et malaises.   |
| <b>Inhalation:</b>           | L'inhalation est la principale voie d'exposition. À concentration élevée, les vapeurs, émanations ou brouillards peuvent être irritants pour le nez, la gorge et les muqueuses. |
| <b>Contact avec la Peau:</b> | Le contact prolongé avec la peau peut entraîner des rougeurs et de l'irritation.  |
| <b>Contact oculaire:</b>     | Le contact oculaire est possible ; il doit être évité.  |

**Symptômes liés aux caractéristiques physiques, chimiques et toxicologiques**

|                              |                                |
|------------------------------|--------------------------------|
| <b>Ingestion:</b>            | Aucune information disponible. |
| <b>Inhalation:</b>           | Aucune information disponible. |
| <b>Contact avec la Peau:</b> | Aucune information disponible. |
| <b>Contact oculaire:</b>     | Aucune information disponible. |

**Informations sur les effets toxicologiques****Toxicité aiguë (répertoire toutes les voies d'exposition possibles)**

|                               |   |
|-------------------------------|---|
| <b>Ingestion<br/>Produit:</b> | Non classé comme présentant une toxicité aiguë d'après les données disponibles. |
|-------------------------------|---|

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

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**Contact avec la peau****Produit:**

Non classé comme présentant une toxicité aiguë d'après les données disponibles.

**Inhalation****Produit:**

Non classé comme présentant une toxicité aiguë d'après les données disponibles.

**Toxicité à dose répétée****Produit:**

Aucune information disponible.

**Corrosion ou Irritation de la Peau****Produit:**

Aucune information disponible.

**Blessure ou Irritation Grave des Yeux****Produit:**

Aucune information disponible.

**Sensibilisation Respiratoire ou Cutanée****Produit:**

Aucune information disponible.

**Cancérogénicité****Produit:**

Aucune information disponible.

**Monographies du CIRC sur l'évaluation des risques de cancérogénicité pour l'homme :**

Aucun composant cancérigène identifié

**États-Unis. Rapport du NTP (National Toxicology Program) sur les cancérogènes :**

Aucun composant cancérigène identifié

**ÉTATS-UNIS. Substances spécialement réglementées par l'OSHA (29 CFR 1910.1001-1050)**

Aucun composant cancérigène identifié

**Mutagénicité des Cellules Germinales****In vitro****Produit:**

Aucune information disponible.

**In vivo****Produit:**

Aucune information disponible.

**Toxicité pour la reproduction****Produit:**

Aucune information disponible.

**Toxicité Spécifique au Niveau de l'Organe Cible- Exposition Unique****Produit:**

Aucune information disponible.

**Toxicité Spécifique au Niveau de l'Organe Cible- Expositions répétées****Produit:**

Aucune information disponible.

**Risque d'Aspiration****Produit:**

Aucune information disponible.

**Autres effets:**

Aucune information disponible.



**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

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**12 – Données écologiques**

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**Informations générales:** Ce produit n'a pas été évalué pour la toxicité écologique ou d'autres effets de l'environnement.

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**13 – Recyclage**

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**Instructions pour l'élimination:** Le rejet, le traitement et l'élimination peuvent être soumis à des lois nationales, régionales ou locales. Éliminer les déchets dans une installation de traitement et d'élimination des déchets appropriée conformément aux lois et aux réglementations en vigueur et en fonction des caractéristiques du produit au moment de l'élimination. C'est la responsabilité de l'utilisateur de produit ou du propriétaire pour déterminer au moment de la disposition, qui se perdent les règlements doivent être appliqués.

**Emballages Contaminés:** Les conteneurs vides doivent être acheminés vers un site agréé pour le traitement des déchets à des fins de recyclage ou d'élimination.

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**14 – Transport**

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**Ministère des transports des États-Unis (Department of Transportation, DOT)**  
Non réglementé.

**IMDG**  
Non réglementé.

**IATA**  
Non réglementé.

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**15 – Réglementation**

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**Réglementations Fédérales des Etats-Unis**

**ÉTATS-UNIS. Substances spécialement réglementées par l'OSHA (29 CFR 1910.1001-1050)**  
Aucun présent ou aucun présent dans des quantités réglementées.

**Superfund Amendments and Reauthorization Act de 1986 (SARA)**

**Catégories de danger**

Ce produit est classé comme non dangereux selon la norme américaine OSHA 29CFR 1910.1200 (HazCom 2012)

**SARA 313 (Déclaration au TRI)**

Aucun présent ou aucun présent dans des quantités réglementées.

**États-Unis - Réglementation des États**

**États-Unis - Proposition 65 de la Californie**

Aucun composant réglementé par la Proposition 65 de la Californie n'est présent.

**Produit: RIDGID Nu-Clear Thread Cutting Oil (Etats-Unis)**

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**16 – Renseignements divers**

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Rédaction : Ridge Tool Company (OPSTD 6-101)

Date de publication : le 2 mai 2018

Dernière révision : le 8 mars 2017

Quoi que la société Ridge Tool estime que les affirmations, informations techniques et recommandations ci-présentes sont dignes de confiance, celles-ci ne sont données qu'à titre indicatif, sans aucune garantie expresse ou implicite, et ne sauraient engager la responsabilité civile de la société en cas de pertes, dommages et intérêts, voire frais directs ou indirects relevant de leur application.



## HOJA DE DATOS DE SEGURIDAD

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### Sección 1 – Identificación del producto y la compañía

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Nombre del producto:  
RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)

No. de catálogo:  
11461, 11481, 41575, 41585, 42513, 70835

Uso recomendado:  
Para cortar roscas

Restricciones de utilización:  
Uso industria seulement

Nombre de la compañía:

North America  
Ridge Tool Company  
400 Clark Street  
Elyria, Ohio 44035-6001, EE. UU.  
Teléfono 1-800-519-3456 (EE. UU.) (8:00 a 17:00 hora  
estándar del este, lunes a viernes)  
Teléfono de emergencia: Llame al 9-1-1 o al teléfono de  
emergencia local  
[www.RIDGID.com](http://www.RIDGID.com)

Fecha de publicación: 2 de mayo de 2018

Révision: K

**Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)**

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**Sección 2 – Identificación de peligros**

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**Clasificación de Peligro**

Este producto está clasificado como no peligroso según la norma OSHA 29CFR 1910.1200 (HazCom 2012)

**Elementos de la Etiqueta**

- Símbolo de Peligro:** No hay símbolo
- Palabra de Advertencia:** No hay palabra de advertencia.
- Indicación de Peligro:** No aplicable
- Consejos de Prudencia** No aplicable

**Otros peligros que no dan lugar a clasificación SGA:** Ninguno.

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**Sección 3 – Composición e información sobre ingredientes**

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**Información general:** Este producto no contiene silicona o aditivos clorados.

**Componente(s) peligroso(s):**

| Determinación química | No. CAS      | Concentración |
|-----------------------|--------------|---------------|
| Mineral oil           | Confidencial | 20 - <50%     |
| Paraffin oils         | Confidencial | 20 - <50%     |
| Vegetable oil         | Confidencial | 1 - <5%       |

Las identidades químicas específicas y/o los porcentajes exactos han sido retenidos como secretos de fabricación.

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**Sección 4 – Primeros auxilios**

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- Ingestión:** Enjuagar a fondo la boca. Llamar a un CENTRO DE TOXICOLOGÍA / médico si la persona se encuentra mal. NO provocar el vómito.
- Inhalación:** Trasladar al aire libre. Llamar a un CENTRO DE TOXICOLOGÍA / médico si la persona se encuentra mal.
- Contacto con la Piel:** Quitar ropa y zapatos contaminados. Lave las áreas de contacto con agua y jabón. En caso de irritación cutánea: Consultar a un médico.
- Contacto con los ojos:** Lave con abundante agua. Si aparece irritación, busque asistencia médica. Continuar enjuagando durante al menos 15 minutos.



## Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)

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### Los síntomas y efectos más importantes, tanto los agudos como los retardados

**Síntomas:** No hay datos disponibles.

### Indicación de asistencia médica inmediata y tratamiento especial necesario

**Tratamiento:** Obtenga atención médica en caso de síntomas.

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## Sección 5 – Medidas contra incendios

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**Riesgos Generales de Incendio:** Ningún riesgo excepcional de incendio o explosión señalado.

### Medios de extinción adecuados (y no adecuados)

**Medios de extinción apropiados:** Agua pulverizada, neblina, CO<sub>2</sub>, polvos químicos, o espuma normal. Seleccione el medio de extinción más apropiado, teniendo en cuenta la posible presencia de otros productos químicos.

**Medios de extinción no apropiados:** No utilice chorro de agua, pues extendería el fuego.

**Peligros específicos derivados de la sustancia química:** El calor puede ocasionar explosión de los recipientes. En caso de incendio se pueden formar gases nocivos.

### Equipo especial de protección y medias de precaución para los bomberos

**Medidas especiales de lucha contra incendios:** No hay datos disponibles.

**Equipos de protección especial que debe llevar el personal de lucha contra incendios:** Los bomberos deben utilizar un equipo de protección estándar incluyendo chaqueta ignífuga, casco con careta, guantes, botas de goma, y, en espacios cerrados, equipo de respiración autónomo (SCBA, según sus siglas en inglés).

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## Sección 6 – Medidas en caso de liberación accidental

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**Precauciones personales, equipo de protección y procedimientos de emergencia:** Consulte la sección 8 de la FDS sobre equipo de protección personal. No toque los recipientes dañados o el material derramado a menos que esté usando ropa protectora adecuada. Mantener alejado al personal no autorizado. Asegúrese una ventilación apropiada.

**Métodos y material de contención y de limpieza:** Absorber con arena u otro absorbente inerte. Detenga el flujo del material, si esto no representa un riesgo.

**Precauciones Relativas al Medio Ambiente:** Evitar su liberación al medio ambiente. No contamine el drenaje o el alcantarillado. Impedir nuevos escapes o derrames de forma segura.





## Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)

### Sección 7 – Manipulación y almacenamiento

**Precauciones para una manipulación segura:**

Respete las normas para una manipulación correcta de productos químicos. Use equipo protector personal adecuado. No exponga al calor intenso cuando el producto puede ampliar y presurizar el contenedor.

**Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades:**

Guárdese en el recipiente original bien cerrado. Evite el contacto con agentes reductores. Consérvese alejado de materiales incompatibles. Vida útil: 720 días

### Sección 8 – Controles contra la exposición: protección personal

**Valores Límite**

| Determinación química               | Tipo | Valores Límite de Exposición | Fuente  |
|-------------------------------------|------|------------------------------|---|
| Mineral oil - Niebla                | PEL  | 5 mg/m <sup>3</sup>          | NOS. OSHA la tabla Z-1 límites para contaminantes del aire (29 CFR 1910.1000) (01 2017) |
| Mineral oil - Niebla                | TWA  | 5 mg/m <sup>3</sup>          | NOS. OSHA la Tabla Z-1-A (29 CFR 1910.1000) (1989)                                      |
| Paraffin oils - Fracción inhalable  | TWA  | 5 mg/m <sup>3</sup>          | EE.UU. ACGIH Valores umbrales límite (03 2014)  |
| Paraffin oils - Niebla              | PEL  | 5 mg/m <sup>3</sup>          | NOS. OSHA la tabla Z-1 límites para contaminantes del aire (29 CFR 1910.1000) (02 2006) |
| Paraffin oils - Niebla              | TWA  | 5 mg/m <sup>3</sup>          | NOS. OSHA la Tabla Z-1-A (29 CFR 1910.1000) (1989)                                      |
| Vegetable oil - Polvo total         | PEL  | 15 mg/m <sup>3</sup>         | NOS. OSHA la tabla Z-1 límites para contaminantes del aire (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Fracción respirable | PEL  | 5 mg/m <sup>3</sup>          | NOS. OSHA la tabla Z-1 límites para contaminantes del aire (29 CFR 1910.1000) (02 2006) |

**Medidas de protección:**

Utilizar los equipos de protección individual según las necesidades.

**Protección respiratoria:**

En caso de ventilación insuficiente, utilice un equipo respiratorio adecuado. Consulte al supervisor sobre la norma de la compañía de protección respiratoria.

**Protección de los Ojos:**

Use gafas de seguridad con protectores laterales (o gafas estancas).

**Protección de la Piel y del Cuerpo:**

Use ropa protectora apropiada para el riesgo de exposición. Tenga en cuenta otros peligros, como las piezas giratorias. Comuníquese con el profesional o fabricante de salud y seguridad para obtener información específica.

**Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)**

**Medidas de higiene:** Seguir siempre buenas medidas de higiene personal, como lavarse después de manipular el material y antes de comer, beber y/o fumar. Lave rutinariamente la ropa de trabajo para eliminar los contaminantes. Deseche el calzado contaminado que no se pueda limpiar.

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**Sección 9 – Propiedades físicas y químicas**

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**Aspecto**

|  |   |
|--|---|
| <b>Forma/estado:</b>   | Líquido                                       |
| <b>Forma/Figura:</b>   | No hay datos disponibles.                     |
| <b>Color:</b>  | Amarillo                                      |
| <b>Olor:</b>   | Ligero, petróleo/solvente                     |
| <b>Umbral de olor:</b>   | No hay datos disponibles.                     |
| <b>pH:</b>   | No hay datos disponibles.                     |
| <b>Punto de fusión / Punto de congelación:</b>                       | No hay datos disponibles.                     |
| <b>Punto inicial de ebullición e intervalo de ebullición:</b>        | No hay datos disponibles.                     |
| <b>Punto de inflamación:</b>   | 196.11 °C (385.00 °F)                         |
| <b>Tasa de evaporación:</b>  | No hay datos disponibles.                     |
| <b>Inflamabilidad (sólido, gas):</b>                                 | No hay datos disponibles.                     |
| <b>Límites superior/inferior de inflamabilidad o de explosividad</b> |   |
| <b>Límite superior de inflamabilidad (LSI) (%):</b>                  | No hay datos disponibles.                     |
| <b>Límite inferior de inflamabilidad (LII) (%):</b>                  | No hay datos disponibles.                     |
| <b>Límite superior de explosividad (%):</b>                          | No hay datos disponibles.                     |
| <b>Límite inferior de explosividad (%):</b>                          | No hay datos disponibles.                     |
| <b>Presión de vapor:</b>   | No hay datos disponibles.                     |
| <b>Densidad del vapor:</b>   | No hay datos disponibles.                     |
| <b>Densidad relativa:</b>  | 0.878   |
| <b>Solubilidad(es)</b>   |   |
| <b>Solubilidad en agua:</b>  | Insoluble                                     |
| <b>Solubilidad (otra):</b>   | No hay datos disponibles.                     |
| <b>Coefficiente de reparto (n-octanol/agua):</b>                     | No hay datos disponibles.                     |
| <b>Temperatura de autoignición:</b>                                  | No hay datos disponibles.                     |
| <b>Temperatura de descomposición:</b>                                | No hay datos disponibles.                     |
| <b>Viscosidad:</b>   | 43 mm <sup>2</sup> /s (40 °C, medido)         |
| <b>OTRA INFORMACIÓN</b>  |   |
| <b>VOC:</b>  | 1.1 % (Method 24)<br>9.4 g/l (ASTM E 1868-10) |

**Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)**

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**Sección 10 – Estabilidad y reactividad**

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|  |  |
|--|--|
| <b>Reactividad:</b>                            | No reactivo durante uso normal.  |
| <b>Estabilidad Química:</b>                    | El material es estable bajo condiciones normales.  |
| <b>Posibilidad de Reacciones Peligrosas:</b>   | Ningunos en circunstancias normales.   |
| <b>Condiciones que Deben Evitarse:</b>         | Evite el calor o la contaminación.   |
| <b>Materiales Incompatibles:</b>               | No hay datos disponibles.  |
| <b>Productos de Descomposición Peligrosos:</b> | La descomposición térmica o la combustión pueden liberar óxido de carbono u otros gases o vapores tóxicos. |

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**Sección 11 – Información toxicológica**

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**Información sobre posibles vías de exposición**

|                               |  |
|-------------------------------|--|
| <b>Ingestión:</b>             | Puede ingerirse accidentalmente. La ingestión puede causar irritación y malestar.  |
| <b>Inhalación:</b>            | La inhalación es la principal vía de exposición. En concentraciones altas, los vapores, humos o neblinas pueden irritar la nariz, la garganta y las membranas mucosas. |
| <b>Contacto con la Piel:</b>  | El contacto prolongado con la piel puede causar rubor e irritación.  |
| <b>Contacto con los ojos:</b> | El contacto con los ojos es posible y debe evitarse.   |

**Síntomas relacionados a las características físicas, químicas y toxicológicas**

|                               |                           |
|-------------------------------|---------------------------|
| <b>Ingestión:</b>             | No hay datos disponibles. |
| <b>Inhalación:</b>            | No hay datos disponibles. |
| <b>Contacto con la Piel:</b>  | No hay datos disponibles. |
| <b>Contacto con los ojos:</b> | No hay datos disponibles. |

**Información sobre los efectos toxicológicos****Toxicidad aguda (listar todas las vías de exposición posibles)**

|                            |   |
|----------------------------|---|
| <b>Ingestión Producto:</b> | No clasificado en cuanto a toxicidad aguda con los datos disponibles. |
|----------------------------|---|



## Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)

---

### Contacto dermal

**Producto:** No clasificado en cuanto a toxicidad aguda con los datos disponibles.

### Inhalación

**Producto:** No clasificado en cuanto a toxicidad aguda con los datos disponibles.

### Toxicidad por dosis repetidas

**Producto:** No hay datos disponibles.

### Corrosión/Irritación Cutáneas

**Producto:** No hay datos disponibles.

### Lesiones Oculares Graves/Irritación Ocular

**Producto:** No hay datos disponibles.

### Sensibilización de la Piel o Respiratoria

**Producto:** No hay datos disponibles.

### Carcinogenicidad

**Producto:** No hay datos disponibles.

#### Monografías de IARC sobre la evaluación de los riesgos carcinogénicos para los humanos

No se identificaron componentes carcinogénicos

#### Programa Nacional de Toxicología de EUA (NTP). Reporte sobre carcinógenos

No se identificaron componentes carcinogénicos

#### EEUU. OSHA Sustancias específicamente reguladas (29 CFR 1910.1001-1050)

No se identificaron componentes carcinogénicos

### Mutagenicidad en Células Germinales

#### En vitro

**Producto:** No hay datos disponibles.

#### En vivo

**Producto:** No hay datos disponibles.

### Toxicidad para la reproducción

**Producto:** No hay datos disponibles.

### Toxicidad Sistémica Específica de Órganos Diana- Exposición Única

**Producto:** No hay datos disponibles.

### Toxicidad Sistémica Específica de Órganos Diana- Exposiciones Repetidas

**Producto:** No hay datos disponibles.

### Peligro por Aspiración

**Producto:** No hay datos disponibles.

**Otros síntomas:** No hay datos disponibles.



Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)

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## Sección 12 – Información ecológica

---

**Información general:** Este producto no ha sido evaluado para la toxicidad ecológica u otros efectos ambientales.

---

## Sección 13 – Consideraciones relativas a la eliminación

---

**Instrucciones para la eliminación:** Las actividades de descarga, tratamiento o eliminación pueden estar sujetos a leyes nacionales, estatales o locales. Elimine el residuo en una instalación adecuada de tratamiento y eliminación de acuerdo con las leyes y reglamentos correspondientes y características del producto en el momento de la eliminación. Es responsabilidad del usuario del producto o propietario para determinar en el momento de la disposición, que las regulaciones de residuos debe ser aplicado.

**Envases Contaminados:** Los contenedores vacíos deben ser llevados a un sitio de manejo aprobado para desechos, para el reciclado o eliminación.

---

## Sección 14 – Información de transporte

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**DOT**  
No reglamentado.

**IMDG**  
No reglamentado.

**IATA**  
No reglamentado.

---

## Sección 15 – Información sobre reglamentos

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**Reglamentos Federales de EE.UU.**

**EEUU. OSHA Sustancias específicamente reguladas (29 CFR 1910.1001-1050)**  
No están presentes, o no están presentes en las cantidades reguladas.

**Ley de Enmiendas y Reautorización del Superfondo de 1986 (SARA)**

**Categorías de peligro**

Este producto está clasificado como no peligroso según la norma OSHA 29CFR 1910.1200 (HazCom 2012)

**SARA 313 (Reporte TRI, Acerca del Inventario de Liberación de Sustancias Tóxicas)**

No están presentes, o no están presentes en las cantidades reguladas.



**Producto: RIDGID Nu-Clear Thread Cutting Oil (Estados Unidos)**

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**Regulaciones de un Estado de EUA**

**Proposición 65 del Estado de California, EUA**

No hay presencia de ningún ingrediente regulado por CA Prop 65.

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**Sección 16 – Información adicional**

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Preparado por: Ridge Tool Company (OPSTD 6-101)

Fecha de emisión: 2 de mayo de 2018

Fecha de la última revisión: 8 de marzo de 2017

RIDGE TOOL CONSIDERA QUE TODAS LAS DECLARACIONES, INFORMACIÓN TÉCNICA Y RECOMENDACIONES EN EL PRESENTE DOCUMENTO SON CONFIABLES, PERO SE PRESENTAN SIN GARANTÍA ALGUNA, SEA EXPRESA O IMPLÍCITA, Y NO ASUMIMOS RESPONSABILIDAD ALGUNA POR PÉRDIDAS, DAÑOS O GASTOS, DIRECTOS O CONSECUENTES, QUE SURJAN DE SU USO.



**SAFETY DATA SHEET**

**Section 1 – Product & Company Identification**

Product Name .....: RIDGID Nu-Clear Thread Cutting Oil  
 Product Catalog No.....: 41565, 70835, 41575, 41585, 42513

Recommended Use.....: Thread Cutting

Company Name .....: Ridge Tool Company  
 Address.....: 400 Clark Street  
 : Elyria, Ohio 44035-6001  
 Telephone .....: 1-800-519-3456 (USA) (8:00 am – 5:00 pm EST, M-F)  
 Emergency Telephone .....: call 9-1-1 or local emergency number  
 Website .....: www.RIDGID.com

Issue Date .....: May 29, 2015

**Section 2 – Hazards Identification**

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012) and Canada’s Hazardous Products Regulations (WHMIS 2015).

GHS Label Elements: Not applicable

**Section 3 – Composition / Information On Ingredients**

| <u>Component:</u> | <u>CAS #</u> | <u>% By Weight</u> |
|-------------------|--------------|--------------------|
| Mineral Oil       | Confidential | 40-75%             |
| Vegetable Oil     | Confidential | 1-5%               |

**This product does not contain silicone or chlorinated additives.**

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

**Section 4 – First Aid Measures**

**INGESTION:**  
 Rinse mouth thoroughly. Call a Poison Center or doctor if you feel unwell. Do NOT induce vomiting.

**INHALATION:**  
 Move to fresh air. Call a Poison Center or doctor if you feel unwell.

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

---

**SKIN CONTACT:**

Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**EYE CONTACT:**

Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

**MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**

Symptoms:

No data available.

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

Treatment:

Get medical attention as appropriate or if symptoms persist

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**Section 5 – Fire Fighting Measures**

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**GENERAL FIRE HAZARDS:**

No unusual fire or explosion hazards noted.

**SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA**

Suitable extinguishing media:

No data available.

Unsuitable extinguishing media:

Do not use water jet as an extinguisher, as this will spread the fire.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:**

Heat may cause the containers to pressurize and possibly rupture. During fire, gases hazardous to health may be formed.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS**

Special firefighting procedures:

No data available.

Special protective equipment for fire-fighters:

Firefighters must use standard protective equipment appropriate for Industrial fires.



Product Name .....: RIDGID Nu-Clear Thread Cutting Oil

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### **Section 6 – Accidental Release Measures**

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#### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:**

See Section 8 of the SDS for Personal Protective Equipment. Do not handle damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

#### **METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

#### **ENVIRONMENTAL PRECAUTIONS:**

Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so and protect against releases into the environment. Remediate as appropriate.

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### **Section 7 – Handling And Storage**

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#### **PRECAUTIONS FOR SAFE HANDLING:**

Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

#### **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

#### **SHELF LIFE:**

720 days

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

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**Section 8 – Exposure Controls / Personal Protection**

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**EXPOSURE LIMITS:**

| Chemical name                        | type | Exposure Limit Values | Source  |
|--------------------------------------|------|-----------------------|---|
| Mineral oil - Mist.                  | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Total dust.          | PEL  | 15 mg/m <sup>3</sup>  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Respirable fraction. | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |

**PROTECTIVE MEASURES:**

Use personal protective equipment as required.

**RESPIRATORY PROTECTION:**

In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**EYE PROTECTION:**

Wear safety glasses with side shields (or goggles).

**SKIN AND BODY PROTECTION:**

Wear protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**HYGIENE MEASURES:**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

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**Section 9 – Physical And Chemical Properties**

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|   |   |
|---|---|
| Appearance  |   |
| Physical State  | Liquid                                  |
| Form  | No data available                       |
| Color   | Yellow                                  |
| Odor  | Mild petroleum                          |
| Odor Threshold  | No data available                       |
| pH  | No data available                       |
| Melting point/freezing point                          | No data available                       |
| Initial boiling point and boiling range               | No data available                       |
| Flash point   | 196 °C (385 °F)                         |
| Evaporation rate                                      | No data available                       |
| Flammability (solid, gas)                             | No data available                       |
| Upper/lower limit on flammability or explosive limits |   |
| Flammability limit - upper (%)                        | No data available                       |
| Flammability limit - lower (%)                        | No data available                       |
| Explosive limit – upper (%)                           | No data available                       |
| Explosive limit – lower (%)                           | No data available                       |
| Vapor pressure  | No data available                       |
| Vapor density   | No data available                       |
| Relative density                                      | 0.878                                   |
| Solubility(ies)                                       |   |
| Solubility in water                                   | Insoluble                               |
| Solubility (other)                                    | No data available                       |
| Partition coefficient (n-octanol/water)               | No data available                       |
| Auto-ignition temperature                             | No data available                       |
| Decomposition temperature                             | No data available                       |
| Viscosity   | 43 mm <sup>2</sup> /s (40 °C, measured) |
| VOC   | 9.4 g/l                                 |

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

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### Section 10 – Stability And Reactivity

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**REACTIVITY:**

Not reactive during normal use.

**CHEMICAL STABILITY:**

No data available.

**POSSIBILITY OF HAZARDOUS REACTIONS:**

None under normal conditions.

**CONDITIONS TO AVOID:**

Avoid heat or contamination.

**INCOMPATIBLE MATERIALS:**

No data available.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Contains a component which may release flammable substances, including trimethylpentene, by distillation in systems with solvent recovery. This may lead to accumulation in the solvent circuit.

---

### Section 11 – Toxicological Information

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**INFORMATION ON LIKELY ROUTES OF EXPOSURE**

**Ingestion:**

May be ingested by accident. Ingestion may cause irritation and malaise.

**Inhalation:**

Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

**Skin Contact:**

Prolonged skin contact may cause redness and irritation.

**Eye contact:**

Eye contact is possible and should be avoided.

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

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## SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

### Ingestion:

No data available.

### Inhalation:

No data available.

### Skin Contact:

No data available.

### Eye contact:

No data available.

## INFORMATION ON TOXICOLOGICAL EFFECTS

### Acute toxicity

#### Oral Product:

ATEmix (): 2000 - 5000 mg/kg

#### Dermal Product:

ATEmix (): 2000 - 5000 mg/kg

#### Inhalation Product:

Not classified for acute toxicity based on available data.

#### Repeated dose toxicity Product:

No data available.

#### Skin Corrosion/Irritation Product:

No data available.

#### Serious Eye Damage/Eye Irritation Product:

No data available.

#### Respiratory or Skin Sensitization Product:

No data available.

#### Carcinogenicity Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

#### Germ Cell Mutagenicity

##### In vitro Product:

No data available.

##### In vivo Product:

No data available.

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

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Reproductive toxicity Product:

No data available.

Specific Target Organ Toxicity - Single Exposure Product:

No data available.

Specific Target Organ Toxicity - Repeated Exposure Product:

No data available.

Aspiration Hazard Product:

No data available.

Other effects:

No data available

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## Section 12 – Ecological Information

---

### GENERAL INFORMATION:

This product has not been evaluated for ecological toxicity or other environmental effects.

---

## Section 13 – Disposal Consideration

---

### DISPOSAL INSTRUCTIONS:

Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

### CONTAMINATED PACKAGING:

Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## Section 14 – Transportation Information

---

This material is not subject to transport regulations.

Product Name ..... : RIDGID Nu-Clear Thread Cutting Oil

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**Section 15 – Regulatory Information**

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US FEDERAL REGULATIONS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories - None

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US STATE REGULATIONS

US. California Proposition 65

No component is regulated by CA Prop 65.

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**Section 16 – Other Information**

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Prepared by: ..... Ridge Tool Company

Issue Date: ..... May 29, 2015

Last Revision Date: ..... May 29, 2015

RIDGE TOOL BELIEVES THE STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE RELIABLE BUT THEY ARE GIVEN WITHOUT WARRANTY OR GUARANTEE OF ANY KIND, EXPRESSED OR IMPLIED, AND WE ASSUME NO RESPONSIBILITY FOR ANY LOSS, DAMAGE OR EXPENSE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THEIR USE.

**MATERIAL SAFETY DATA SHEET**

---

**Section 1 – Product & Company Identification**

---

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil  
Product Catalog No. ....: 41565, 70835, 41575, 41585

Company Name.....: Ridge Tool Company  
Address .....: 400 Clark Street  
                          : Elyria, Ohio 44036-2023  
Telephone .....: 1-800-519-3456 (USA) (8:00 am – 5:00 pm EST, M-F)  
Emergency Telephone .....: 1-440-323-5581 (USA) (24 Hours)

Issue Date .....: January 5, 2006

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**Section 2 – Hazards Identification**

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**EMERGENCY OVERVIEW:**

This product is a liquid that is insoluble in water. Direct eye contact may cause minor, short term irritation. Short term skin exposure is not expected to be irritating. Inhalation and ingestion are not anticipated routes of exposure during normal conditions of use.

**POTENTIAL HEALTH EFFECTS AND SYMPTOMS FROM SHORT TERM / ACUTE EXPOSURE:**

- Eye

This product is not expected to cause eye irritation under normal conditions of use. Symptoms of slight eye irritation may result when direct contact occurs, or when exposed to high mist levels in poorly ventilated areas.

- Skin

Short term skin contact is not expected to cause skin irritation. Prolonged or repeated direct exposure to the skin may result in symptoms of irritation and redness. In severe cases, prolonged or repeated contact may result in dermatitis accompanied by symptoms of irritation, itching, dryness, cracking and/or inflammation.



Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

---

- Inhalation:

This product has low volatility and so is not expected to cause respiratory tract irritation during normal conditions of use. Exposure to high mist levels in poorly ventilated areas may cause upper respiratory tract irritation and difficulty breathing.

- Ingestion:

Ingestion may cause slight stomach irritation and discomfort.

- Potential Chronic Health Effects

No further data known.

- Medical Conditions Aggravated By Exposure:

No further data known.

- Carcinogenicity:

This product is not listed as a known or suspected carcinogen by IARC, OSHA or the NTP.

---

### Section 3 – Composition / Information On Ingredients

---

Components listed in this section may contribute to the potential hazards associated with exposure to the concentrate. The product may contain additional non-hazardous or trade secret components.

| <u>Component:</u>       | <u>CAS #</u> | <u>% By Weight</u> |
|-------------------------|--------------|--------------------|
| Mineral Oil             | 64742-54-7   | > 95               |
| Sulfur Additive Package | Mixture      | < 5                |

#### CARCINOGENIC COMPONENTS:

This product contains no carcinogens.

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

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### Section 4 – First Aid Measures

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#### EYE CONTACT:

Upon direct eye contact, hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If irritation is due to exposure to mist or vapors, remove the individual to fresh air. If irritation persists, flush the eyes with clean water until the irritation subsides. If symptoms persist, contact a physician.

#### SKIN CONTACT:

Remove product from the skin by washing with a mild soap and water. Contaminated clothing should be removed to prevent prolonged exposure. If symptoms of exposure persist, contact a physician.

#### INHALATION:

Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs, remove the employee to fresh air. Contact a physician or other medical professional if irritation or distress persists.

#### INGESTION:

If small amounts are ingested, first aid measures are not likely to be necessary. If larger amounts are ingested or if symptoms of ingestion occur, dilute stomach contents with two glasses of water or milk. (NOTE: Do NOT give anything by mouth to an unconscious person.) Do not induce vomiting without medical supervision. If vomiting occurs spontaneously, keep airway clear. If symptoms of ingestion persist, seek medical attention.

#### NOTE TO PHYSICIANS:

No further data known.

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### Section 5 – Fire Fighting Measures

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#### FIRE AND EXPLOSIVE PROPERTIES:

Flashpoint.....: 385°F Cleveland Open Cup  
Flammability Limits .....: LEL - N/A  
UEL - N/A

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

---

#### EXTINGUISH MEDIA:

In accordance with NFPA guidance, dry chemical, foam or CO2 fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, do NOT apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS:

No further data known.

#### FIRE-FIGHTING PROCEDURES AND EQUIPMENT:

Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. See Section 8 of the MSDS for other PPE to be worn as conditions warrant.

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### **Section 6 – Accidental Release Measures**

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#### PERSONAL PRECAUTIONS:

Use personal protection recommended in Section 8.

#### ENVIRONMENTAL:

This material is a water pollutant. Do not let spilled or leaking material enter waterways.

#### CLEAN-UP MEASURES:

Important: As with any spill or leak, before responding, ensure that you are familiar with the potential hazards and recommendations of the MSDS. Appropriate personal protective equipment must be worn.

If possible, safely contain the spill with dikes or other spill response equipment appropriate for petroleum or organic material releases. Take measures to prevent spreading of product. Note that while product will ignite, it will not readily burn. However, as a precaution, eliminate ignition sources. Prevent from entering sewers or waterways. Large volumes may be transferred to an appropriate container for proper disposal. Small volumes or residues may be soaked up with absorbents. Spill response materials should be collected for proper disposal.

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

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### Section 7 – Handling And Storage

---

#### HANDLING:

As with any industrial chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs. Open containers slowly to relieve any pressure. Follow all other standard industrial hygiene practices.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

Product residue in empty containers is combustible but will not readily burn. Note, however, that excessive heating or cutting of empty containers may create an ignition source sufficient to start a fire and, in extreme cases, cause an explosion.

#### STORAGE:

Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.

#### SPECIAL COMMENTS:

No further data known.

---

### Section 8 – Exposure Controls / Personal Protection

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#### EXPOSURE GUIDELINES:

##### Component

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|                         |                |                                  |
|-------------------------|----------------|----------------------------------|
| Mineral Oil             | ACGIH TLV:     | 5 mg / m <sup>3</sup> (as mist)  |
|                         | ACGIH STEL:    | 10 mg / m <sup>3</sup> (as mist) |
|                         | OSHA PEL:      | 5 mg / m <sup>3</sup> (as mist)  |
| Sulfur Additive Package | No information |                                  |

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

---

#### ENGINEERING CONTROLS:

Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. Ventilation should, at a minimum, prevent airborne concentrations from exceeding any exposure limits.

The user may wish to refer to 29 CFR 1910.1000(d) (2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

#### PERSONAL PROTECTIVE EQUIPMENT:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

- Eye Protection

Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.

- Skin Protection

Gloves are not normally needed during normal conditions of use. If health effects are experienced, oil or chemical resistant gloves such as butyl or nitrile are recommended.

Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

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- Respiratory Protection

A respirator may be worn to reduce exposure to vapors, dust or mist. Select a NIOSH/MSHA approved respirator appropriate for the type and physical character of the airborne material. A self-contained breathing apparatus is recommended in all situations where airborne contaminant concentration has not been confirmed to be below safe levels. Respirator use should comply with the OSHA Respirator Protection Standard found in 29 CFR 1910.134.

- General Hygiene Considerations

Wash thoroughly after handling.

---

### Section 9 – Physical And Chemical Properties

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Physical Appearance:.....: Clear Yellow  
Odor. ....: Mild Petroleum  
Physical State.....: Liquid  
Water Solubility.....: Insoluble  
Specific Gravity.....: .878

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### Section 10 – Stability And Reactivity

---

#### STABILITY:

This product is stable.

#### CONDITIONS TO AVOID:

Avoid contact with incompatible materials and exposure to extreme temperatures.

#### INCOMPATIBLE MATERIALS:

This product is incompatible with strong oxidizing agents.

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

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**DECOMPOSITION PRODUCTS MAY INCLUDE:**

Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion by-products may include:

oxides of carbon

oxides of sulfur

incompletely burned hydrocarbons as fumes and smoke

**POSSIBILITY OF HAZARDOUS REACTIONS:**

This product is not expected to polymerize

---

**Section 11 – Toxicological Information**

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**EYE EFFECTS:**

No further toxicological data known.

**SKIN EFFECTS:**

No further toxicological data known.

**ORAL EFFECTS:**

No further toxicological data known.

**INHALATION EFFECTS:**

No further toxicological data known.

**OTHER:**

No further toxicological data known.

Product Name.....: RIDGID Nu-Clear Thread Cutting Oil

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**Section 12 – Ecological Information**

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**ECOTOXICOLOGICAL INFORMATION:**

This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

**ENVIRONMENTAL FATE:**

The degree of biodegradability and persistence of this product has not been determined.

---

**Section 13 – Disposal Consideration**

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**WASTE DISPOSAL:**

Ensure that collection, transport, treatment and disposal of waste product and containers complies with all applicable laws and regulations. Note that use, mixture, processing or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of disposal whether the product is regulated as a hazardous waste.

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**Section 14 – Transportation Information**

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**U.S. DOT HAZARDOUS MATERIAL INFORMATION:**

Not DOT regulated.



Product Name : RIDGID Nu-Clear Thread Cutting Oil

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### Section 15 – Regulatory Information

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#### FEDERAL REGULATIONS:

##### SARA 313:

This product contains NONE of the substances 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.

##### CLEAN WATER ACT:

This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

##### CERCLA REPORTABLE QUANTITY:

Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

None to report

##### TOXIC SUBSTANCE CONTROL ACT:

The components of this product are listed on the TSCA Inventory.

##### OZONE DEPLETING SUBSTANCES:

This product contains no ozone depleting substances as defined by the Clean Air Act.

##### HAZARDOUS AIR POLLUTANTS:

Any components listed below are defined by the Federal EPA as hazardous air pollutants:

None to report

Product Name : RIDGID Nu-Clear Thread Cutting Oil

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#### STATE REGULATIONS

This product contains mineral oil, and as used, may be regulated by state used oil regulations. Check with the appropriate state agency to determine whether such a regulation exists.

#### CANADA

WHMIS Classification: None

DSL:

The components of this product are listed on DSL Inventory.

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### Section 16 – Other Information

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#### HMIS RATING:

| Health | Flammability | Reactivity | PPE |
|--------|--------------|------------|-----|
| 1      | 1            | 0          | X   |

Prepared by: . . . . . Ridge Tool Company

Issue Date: . . . . . January 5, 2006

Last Revision Date: . . . . . May, 2004

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## SAFETY DATA SHEET

### Section 1 – Product & Company Identification

Product Name:  
RIDGID Nu-Clear Thread Cutting Oil (United States)

Product Catalog No.:  
11461, 11481, 41575, 41585, 42513, 70835

Recommended Use:  
Thread Cutting

Restrictions on Use:  
Industrial use only

Company Information:

| <u>North America</u>   | <u>Australia</u>   |
|--|--|
| Ridge Tool Company<br>400 Clark Street<br>Elyria, Ohio 44035-6001<br>1-800-519-3456<br>(8:00 am – 5:00 pm EST, M-F)<br>Emergency Telephone<br>call 9-1-1 or local emergency number<br>www.RIDGID.com | Ridge Tool Australia<br>127 Metrolink Circuit<br>Campbellfield, VIC 3061<br>1-800-743-443<br>(8:30 am – 5:00 pm AEST, M-F)<br>Emergency Telephone<br>call 000 or local emergency number<br>www.RIDGID.com.au |

Issue Date: May 2, 2018

Revision: K

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**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 2 – Hazards Identification**

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**Hazard Classification**

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

**Label Elements**

**Hazard Symbol:** No symbol  
**Signal Word:** No signal word.  
**Hazard Statement:** Not applicable  
  
**Precautionary Statements** Not applicable

**Other hazards which do not result in GHS classification:** None.

---

---

**Section 3 – Composition / Information On Ingredients**

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---

**General information:** This product does not contain silicone or chlorinated additives.

**Hazardous Component(s):**

| <b>Chemical name</b> | <b>CAS-No.</b> | <b>Concentration</b> |
|----------------------|----------------|----------------------|
| Mineral oil          | Confidential   | 20 - <50%            |
| Paraffin oils        | Confidential   | 20 - <50%            |
| Vegetable oil        | Confidential   | 1 - <5%              |

Specific chemical identities and/or exact percentages have been withheld as trade secrets.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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---

### **Section 4 – First Aid Measures**

---

**Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

**Inhalation:** Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.

**Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

#### **Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

#### **Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

---

### **Section 5 – Fire Fighting Measures**

---

**General Fire Hazards:** No unusual fire or explosion hazards noted.

#### **Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

#### **Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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---

### **Section 6 – Accidental Release Measures**

---

|   |  |
|---|--|
| <b>Personal precautions, protective equipment and emergency procedures:</b> | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation. |
| <b>Methods and material for containment and cleaning up:</b>                | Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.   |
| <b>Environmental Precautions:</b>   | Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.   |

---

### **Section 7 – Handling And Storage**

---

|  |  |
|--|--|
| <b>Precautions for safe handling:</b>                                | Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. |
| <b>Conditions for safe storage, including any incompatibilities:</b> | Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials. Shelf Life: 720 Days                            |



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

**Section 8 – Exposure Controls / Personal Protection**

---

**Exposure Limits**

| Chemical name                        | Type | Exposure Limit Values | Source  |
|--------------------------------------|------|-----------------------|---|
| Mineral oil - Mist.                  | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (01 2017) |
| Mineral oil - Mist.                  | TWA  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)                              |
| Paraffin oils - Inhalable fraction.  | TWA  | 5 mg/m <sup>3</sup>   | US. ACGIH Threshold Limit Values (03 2014)                                  |
| Paraffin oils - Mist.                | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Paraffin oils - Mist.                | TWA  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)                              |
| Vegetable oil - Total dust.          | PEL  | 15 mg/m <sup>3</sup>  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Respirable fraction. | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |

- Protective Measures:** Use personal protective equipment as required.
- Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.
- Eye Protection:** Wear safety glasses with side shields (or goggles).
- Skin and Body Protection:** Wear protective clothing appropriate for the risk of exposure. Be aware of other hazards such as rotating parts. Contact health and safety professional or manufacturer for specific information.
- Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

---

**Section 9 – Physical And Chemical Properties**

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**Appearance**

- Physical state:** Liquid
- Form:** No data available.
- Color:** Yellow
- Odor:** Mild petroleum/solvent
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** No data available.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

|  |   |
|--|---|
| <b>Initial boiling point and boiling range:</b>              | No data available.                            |
| <b>Flash Point:</b>  | 196.11 °C (385.00 °F)                         |
| <b>Evaporation rate:</b>                                     | No data available.                            |
| <b>Flammability (solid, gas):</b>                            | No data available.                            |
| <b>Upper/lower limit on flammability or explosive limits</b> |   |
| <b>Flammability limit - upper (%):</b>                       | No data available.                            |
| <b>Flammability limit - lower (%):</b>                       | No data available.                            |
| <b>Explosive limit - upper (%):</b>                          | No data available.                            |
| <b>Explosive limit - lower (%):</b>                          | No data available.                            |
| <b>Vapor pressure:</b>                                       | No data available.                            |
| <b>Vapor density:</b>  | No data available.                            |
| <b>Relative density:</b>                                     | 0.878   |
| <b>Solubility(ies)</b>                                       |   |
| <b>Solubility in water:</b>                                  | Insoluble                                     |
| <b>Solubility (other):</b>                                   | No data available.                            |
| <b>Partition coefficient (n-octanol/water):</b>              | No data available.                            |
| <b>Auto-ignition temperature:</b>                            | No data available.                            |
| <b>Decomposition temperature:</b>                            | No data available.                            |
| <b>Viscosity:</b>  | 43 mm <sup>2</sup> /s (40 °C, Measured)       |
| <b>Other information</b>                                     |   |
| <b>VOC:</b>  | 1.1 % (Method 24)<br>9.4 g/l (ASTM E 1868-10) |

---

**Section 10 – Stability And Reactivity**

---

|  |   |
|--|---|
| <b>Reactivity:</b>                         | Not reactive during normal use.   |
| <b>Chemical Stability:</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions:</b> | None under normal conditions.   |
| <b>Conditions to avoid:</b>                | Avoid heat or contamination.  |
| <b>Incompatible Materials:</b>             | No data available.  |
| <b>Hazardous Decomposition Products:</b>   | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

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**Section 11 – Toxicological Information**

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**Information on likely routes of exposure**

**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.





**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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- Inhalation:** Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
- Skin Contact:** Prolonged skin contact may cause redness and irritation.
- Eye contact:** Eye contact is possible and should be avoided.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Ingestion:** No data available.
- Inhalation:** No data available.
- Skin Contact:** No data available.
- Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

- Oral**
  - Product:** Not classified for acute toxicity based on available data.
- Dermal**
  - Product:** Not classified for acute toxicity based on available data.
- Inhalation**
  - Product:** Not classified for acute toxicity based on available data.

- Repeated dose toxicity**
  - Product:** No data available.

- Skin Corrosion/Irritation**
  - Product:** No data available.

- Serious Eye Damage/Eye Irritation**
  - Product:** No data available.

- Respiratory or Skin Sensitization**
  - Product:** No data available.

- Carcinogenicity**
  - Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

---

**Section 12 – Ecological Information**

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**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

---

**Section 13 – Disposal Consideration**

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**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 14 – Transportation Information**

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**DOT**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

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**Section 15 – Regulatory Information**

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**US Federal Regulations**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 16 – Other Information**

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Prepared by: . . . . . Ridge Tool Company (Operating Standard 6-101)

Issue Date: . . . . . May 2, 2018

Last Revision Date: . . . . . March 8, 2017

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## SAFETY DATA SHEET

### Section 1 – Product & Company Identification

Product Name:  
RIDGID Nu-Clear Thread Cutting Oil (United States)

Product Catalog No.:  
11461, 11481, 41575, 41585, 42513, 70835

Recommended Use:  
Thread Cutting

Restrictions on Use:  
Industrial use only

Company Information:

| <u>North America</u>   | <u>Australia</u>   |
|--|--|
| Ridge Tool Company<br>400 Clark Street<br>Elyria, Ohio 44035-6001<br>1-800-519-3456<br>(8:00 am – 5:00 pm EST, M-F)<br>Emergency Telephone<br>call 9-1-1 or local emergency number<br>www.RIDGID.com | Ridge Tool Australia<br>127 Metrolink Circuit<br>Campbellfield, VIC 3061<br>1-800-743-443<br>(8:30 am – 5:00 pm AEST, M-F)<br>Emergency Telephone<br>call 000 or local emergency number<br>www.RIDGID.com.au |

Issue Date: May 2, 2018

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**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 2 – Hazards Identification**

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**Hazard Classification**

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

**Label Elements**

**Hazard Symbol:** No symbol  
**Signal Word:** No signal word.  
**Hazard Statement:** Not applicable  
  
**Precautionary Statements** Not applicable

**Other hazards which do not result in GHS classification:** None.

---

**Section 3 – Composition / Information On Ingredients**

---

**General information:** This product does not contain silicone or chlorinated additives.

**Hazardous Component(s):**

| <b>Chemical name</b> | <b>CAS-No.</b> | <b>Concentration</b> |
|----------------------|----------------|----------------------|
| Mineral oil          | Confidential   | 20 - <50%            |
| Paraffin oils        | Confidential   | 20 - <50%            |
| Vegetable oil        | Confidential   | 1 - <5%              |

Specific chemical identities and/or exact percentages have been withheld as trade secrets.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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### **Section 4 – First Aid Measures**

---

**Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

**Inhalation:** Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.

**Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

#### **Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

#### **Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

---

### **Section 5 – Fire Fighting Measures**

---

**General Fire Hazards:** No unusual fire or explosion hazards noted.

#### **Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

#### **Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

---

### **Section 6 – Accidental Release Measures**

---

|   |  |
|---|--|
| <b>Personal precautions, protective equipment and emergency procedures:</b> | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation. |
| <b>Methods and material for containment and cleaning up:</b>                | Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.   |
| <b>Environmental Precautions:</b>   | Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.   |

---

### **Section 7 – Handling And Storage**

---

|  |  |
|--|--|
| <b>Precautions for safe handling:</b>                                | Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. |
| <b>Conditions for safe storage, including any incompatibilities:</b> | Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials. Shelf Life: 720 Days                            |





**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

**Section 8 – Exposure Controls / Personal Protection**

---

**Exposure Limits**

| Chemical name                        | Type | Exposure Limit Values | Source  |
|--------------------------------------|------|-----------------------|---|
| Mineral oil - Mist.                  | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (01 2017) |
| Mineral oil - Mist.                  | TWA  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)                              |
| Paraffin oils - Inhalable fraction.  | TWA  | 5 mg/m <sup>3</sup>   | US. ACGIH Threshold Limit Values (03 2014)                                  |
| Paraffin oils - Mist.                | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Paraffin oils - Mist.                | TWA  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)                              |
| Vegetable oil - Total dust.          | PEL  | 15 mg/m <sup>3</sup>  | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Vegetable oil - Respirable fraction. | PEL  | 5 mg/m <sup>3</sup>   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |

- Protective Measures:** Use personal protective equipment as required.
- Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.
- Eye Protection:** Wear safety glasses with side shields (or goggles).
- Skin and Body Protection:** Wear protective clothing appropriate for the risk of exposure. Be aware of other hazards such as rotating parts. Contact health and safety professional or manufacturer for specific information.
- Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

---

**Section 9 – Physical And Chemical Properties**

---

**Appearance**

- Physical state:** Liquid
- Form:** No data available.
- Color:** Yellow
- Odor:** Mild petroleum/solvent
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** No data available.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

|  |   |
|--|---|
| <b>Initial boiling point and boiling range:</b>              | No data available.                            |
| <b>Flash Point:</b>  | 196.11 °C (385.00 °F)                         |
| <b>Evaporation rate:</b>                                     | No data available.                            |
| <b>Flammability (solid, gas):</b>                            | No data available.                            |
| <b>Upper/lower limit on flammability or explosive limits</b> |   |
| <b>Flammability limit - upper (%):</b>                       | No data available.                            |
| <b>Flammability limit - lower (%):</b>                       | No data available.                            |
| <b>Explosive limit - upper (%):</b>                          | No data available.                            |
| <b>Explosive limit - lower (%):</b>                          | No data available.                            |
| <b>Vapor pressure:</b>                                       | No data available.                            |
| <b>Vapor density:</b>  | No data available.                            |
| <b>Relative density:</b>                                     | 0.878   |
| <b>Solubility(ies)</b>                                       |   |
| <b>Solubility in water:</b>                                  | Insoluble                                     |
| <b>Solubility (other):</b>                                   | No data available.                            |
| <b>Partition coefficient (n-octanol/water):</b>              | No data available.                            |
| <b>Auto-ignition temperature:</b>                            | No data available.                            |
| <b>Decomposition temperature:</b>                            | No data available.                            |
| <b>Viscosity:</b>  | 43 mm <sup>2</sup> /s (40 °C, Measured)       |
| <b>Other information</b>                                     |   |
| <b>VOC:</b>  | 1.1 % (Method 24)<br>9.4 g/l (ASTM E 1868-10) |

---

**Section 10 – Stability And Reactivity**

---

|  |   |
|--|---|
| <b>Reactivity:</b>                         | Not reactive during normal use.   |
| <b>Chemical Stability:</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions:</b> | None under normal conditions.   |
| <b>Conditions to avoid:</b>                | Avoid heat or contamination.  |
| <b>Incompatible Materials:</b>             | No data available.  |
| <b>Hazardous Decomposition Products:</b>   | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

---

**Section 11 – Toxicological Information**

---

**Information on likely routes of exposure**

**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

**Inhalation:** Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

**Skin Contact:** Prolonged skin contact may cause redness and irritation.

**Eye contact:** Eye contact is possible and should be avoided.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** Not classified for acute toxicity based on available data.

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

---

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

---

**Section 12 – Ecological Information**

---

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

---

**Section 13 – Disposal Consideration**

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**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 14 – Transportation Information**

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**DOT**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

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**Section 15 – Regulatory Information**

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**US Federal Regulations**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.



**Product Name: RIDGID Nu-Clear Thread Cutting Oil (United States)**

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**Section 16 – Other Information**

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Prepared by: . . . . . Ridge Tool Company (Operating Standard 6-101)

Issue Date: . . . . . May 2, 2018

Last Revision Date: . . . . . March 8, 2017

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## Article Information Sheet

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This Article Information Sheet is provided as a courtesy in response to a customer request. A Safety Data Sheet (SDS) has not been prepared for these product(s) because they are articles. Articles are not subject to the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200(b)(6)(v)). As defined in this standard: "Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 16-6314-5 | <b>Version Number:</b>  | 1.07     |
| <b>Issue Date:</b>     | 04/30/21  | <b>Supersedes Date:</b> | 12/04/18 |

### SECTION 1: Identification

#### 1.1. Product identifier

Scotch® Super 33+™ Vinyl Electrical Tape and Scotch® Premium Vinyl Electrical Tape Super 88

#### Product Identification Numbers

80-6108-3383-4, 80-6112-0701-2, 80-6112-6706-5, 80-6112-6707-3, 80-6114-2435-1, 80-6114-3008-5, 80-6114-3009-3, 80-6114-5717-9  
7100002398, 7010399908, 7000042541

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Electrical Markets Division             |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 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

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|------------|------------|---------|
|------------|------------|---------|

|  |           |             |
|--|-----------|-------------|
| Natural Rubber                                       | 9006-04-6 | 0.13 - 0.17 |
| Poly(Vinyl Chloride) Tape with Rubber-Based Adhesive | Mixed     | 100         |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## SECTION 5: Fire-fighting measures

In case of fire: Use a carbon dioxide or dry chemical extinguisher to extinguish.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties



|  |                                   |
|--|-----------------------------------|
| <b>Appearance</b>                                    |                                   |
| Physical state                                       | Solid                             |
| Color  | Black                             |
| <b>Specific Physical Form:</b>                       | Roll of Tape                      |
| <b>Odor</b>  | Slight Odor                       |
| <b>Odor threshold</b>                                | <i>Not Applicable</i>             |
| <b>pH</b>  | <i>Not Applicable</i>             |
| <b>Melting point</b>                                 | <i>No Data Available</i>          |
| <b>Boiling Point</b>                                 | <i>Not Applicable</i>             |
| <b>Flash Point</b>                                   | <i>Not Applicable</i>             |
| <b>Evaporation rate</b>                              | <i>Not Applicable</i>             |
| <b>Flammability (solid, gas)</b>                     | Not Classified                    |
| <b>Flammable Limits(LEL)</b>                         | <i>No Data Available</i>          |
| <b>Flammable Limits(UEL)</b>                         | <i>No Data Available</i>          |
| <b>Vapor Pressure</b>                                | <i>Not Applicable</i>             |
| <b>Vapor Density</b>                                 | <i>Not Applicable</i>             |
| <b>Density</b>                                       | 1.22 g/cm <sup>3</sup>            |
| <b>Specific Gravity</b>                              | 1.22 [Details:Ref Std: Water = 1] |
| <b>Solubility in Water</b>                           | Nil                               |
| <b>Solubility- non-water</b>                         | <i>Not Applicable</i>             |
| <b>Partition coefficient: n-octanol/ water</b>       | <i>No Data Available</i>          |
| <b>Autoignition temperature</b>                      | <i>No Data Available</i>          |
| <b>Decomposition temperature</b>                     | <i>Not Applicable</i>             |
| <b>Viscosity</b>                                     | <i>Not Applicable</i>             |
| <b>Average particle size</b>                         | <i>No Data Available</i>          |
| <b>Bulk density</b>                                  | <i>No Data Available</i>          |
| <b>Molecular weight</b>                              | <i>No Data Available</i>          |
| <b>Volatile Organic Compounds</b>                    | <i>No Data Available</i>          |
| <b>Percent volatile</b>                              | <i>Not Applicable</i>             |
| <b>Softening point</b>                               | <i>No Data Available</i>          |
| <b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b> | <i>No Data Available</i>          |

## SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use

may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

## SECTION 13: Disposal considerations

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

## 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

### Chemical Inventories

**This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory requirements.**

California Proposition 65

### Ingredient

DIISONONYL PHTHALATE (DINP)

### C.A.S. No.

None

### Classification

Carcinogen

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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:** 0 **Flammability:** 1 **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).

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 16-6314-5 | <b>Version Number:</b>  | 1.07     |
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# 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.

|   |  |
|---|--|
| <b>Eye contact</b>  | Rinse with water. Get medical attention if irritation develops and persists.                                     |
| <b>Ingestion</b>  | Rinse mouth. Get medical attention if symptoms occur.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Direct contact with eyes may cause temporary irritation.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Treat symptomatically.   |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

## 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).                      |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.    |
| <b>General fire hazards</b>  | No unusual fire or explosion hazards noted.   |

## 6. Accidental release measures

|  |  |
|--|--|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.  |
| <b>Methods and materials for containment and cleaning up</b>               | 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. |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.   |

## 7. Handling and storage

|   |  |
|---|--|
| <b>Precautions for safe handling</b>                                | Avoid prolonged exposure. Observe good industrial hygiene practices.                                   |
| <b>Conditions for safe storage, including any incompatibilities</b> | 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 <sup>3</sup> | Oil mist |

#### ACGIH

| Components  | Type | Value               | Form     |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | TWA  | 5 mg/m <sup>3</sup> | Oil mist |

|   |   |
|---|---|
| <b>Biological limit values</b>          | No biological exposure limits noted for the ingredient(s).  |
| <b>Appropriate engineering controls</b> | 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.

|   |   |
|---|---|
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use. |
| <b>Conditions to avoid</b>                | Contact with incompatible materials.                        |
| <b>Incompatible materials</b>             | Strong oxidizing agents.                                    |
| <b>Hazardous decomposition products</b>   | Carbon oxides.  |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Prolonged inhalation may be harmful.                     |
| <b>Skin contact</b> | No adverse effects due to skin contact are expected.     |
| <b>Eye contact</b>  | Direct contact with eyes may cause temporary irritation. |
| <b>Ingestion</b>    | 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)            |         |                         |
| <b>Acute</b>  |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rat     | > 2000 mg/kg, 24 Hours  |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 5000 mg/kg            |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) |         |                         |
| <b>Acute</b>  |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rabbit  | > 2000 mg/kg            |
| <b>Inhalation</b>   |         |                         |
| <i>Vapor</i>  |         |                         |
| LC50  | Rat     | > 0.1 mg/l, 8 Hours     |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 5000 mg/kg            |
| d-limonene (CAS 5989-27-5)                                |         |                         |
| <b>Acute</b>  |         |                         |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 2000 mg/kg            |
| Neopentyl Glycol (CAS 126-30-7)                           |         |                         |
| <b>Acute</b>  |         |                         |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 6400 mg/kg            |
| Phenoxyethanol (CAS 122-99-6)                             |         |                         |
| <b>Acute</b>  |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rabbit  | > 2200 mg/kg, 24 Hours  |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | 1400 mg/kg              |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)            |         |                         |
| <b>Acute</b>  |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rabbit  | > 10000 mg/kg, 24 Hours |

|   |  |
|---|--|
| <b>Skin corrosion/irritation</b>                                      | Prolonged skin contact may cause temporary irritation.   |
| <b>Serious eye damage/eye irritation</b>                              | Direct contact with eyes may cause temporary irritation.   |
| <b>Respiratory or skin sensitization</b>                              |  |
| <b>Respiratory sensitization</b>                                      | Not a respiratory sensitizer.  |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.  |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| <b>Carcinogenicity</b>  | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.                                  |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         |  |
| d-limonene (CAS 5989-27-5)  | 3 Not classifiable as to carcinogenicity to humans.  |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b> |  |
| Not listed.   |  |
| <b>US. National Toxicology Program (NTP) Report on Carcinogens</b>    |  |
| Not listed.   |  |
| <b>Reproductive toxicity</b>  | This product is not expected to cause reproductive or developmental effects.                                     |
| <b>Specific target organ toxicity - single exposure</b>               | Not classified.  |
| <b>Specific target organ toxicity - repeated exposure</b>             | Not classified.  |
| <b>Aspiration hazard</b>  | Not an aspiration hazard.  |
| <b>Chronic effects</b>  | Prolonged inhalation may be harmful.   |
| <b>Further information</b>  | 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)            |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| 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) |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| Fish  | LC50    | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 2.9 mg/l, 96 hours           |
| d-limonene (CAS 5989-27-5)                                |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| 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)                             |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| Fish  | LC50    | Fathead minnow (Pimephales promelas)                | 337 - 352 mg/l, 96 hours     |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)            |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| 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](http://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.

|   |  |
|---|--|
| <b>Eye contact</b>  | Rinse with water. Get medical attention if irritation develops and persists.                                     |
| <b>Ingestion</b>  | Rinse mouth. Get medical attention if symptoms occur.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Direct contact with eyes may cause temporary irritation.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Treat symptomatically.   |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

## 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).                      |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.    |
| <b>General fire hazards</b>  | No unusual fire or explosion hazards noted.   |

## 6. Accidental release measures

|  |  |
|--|--|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.  |
| <b>Methods and materials for containment and cleaning up</b>               | 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. |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.   |

## 7. Handling and storage

|   |  |
|---|--|
| <b>Precautions for safe handling</b>                                | Avoid prolonged exposure. Observe good industrial hygiene practices.                                   |
| <b>Conditions for safe storage, including any incompatibilities</b> | 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 <sup>3</sup> | Oil mist |

#### ACGIH

| Components  | Type | Value               | Form     |
|---|------|---------------------|----------|
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) | TWA  | 5 mg/m <sup>3</sup> | Oil mist |

|   |   |
|---|---|
| <b>Biological limit values</b>          | No biological exposure limits noted for the ingredient(s).  |
| <b>Appropriate engineering controls</b> | 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.

|   |   |
|---|---|
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use. |
| <b>Conditions to avoid</b>                | Contact with incompatible materials.                        |
| <b>Incompatible materials</b>             | Strong oxidizing agents.                                    |
| <b>Hazardous decomposition products</b>   | Carbon oxides.  |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Prolonged inhalation may be harmful.                     |
| <b>Skin contact</b> | No adverse effects due to skin contact are expected.     |
| <b>Eye contact</b>  | Direct contact with eyes may cause temporary irritation. |
| <b>Ingestion</b>    | 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)            |         |                         |
| <b><u>Acute</u></b>                                       |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rat     | > 2000 mg/kg, 24 Hours  |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 5000 mg/kg            |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) |         |                         |
| <b><u>Acute</u></b>                                       |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rabbit  | > 2000 mg/kg            |
| <b>Inhalation</b>   |         |                         |
| <i>Vapor</i>  |         |                         |
| LC50  | Rat     | > 0.1 mg/l, 8 Hours     |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 5000 mg/kg            |
| d-limonene (CAS 5989-27-5)                                |         |                         |
| <b><u>Acute</u></b>                                       |         |                         |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 2000 mg/kg            |
| Neopentyl Glycol (CAS 126-30-7)                           |         |                         |
| <b><u>Acute</u></b>                                       |         |                         |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | > 6400 mg/kg            |
| Phenoxyethanol (CAS 122-99-6)                             |         |                         |
| <b><u>Acute</u></b>                                       |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rabbit  | > 2200 mg/kg, 24 Hours  |
| <b>Oral</b>   |         |                         |
| LD50  | Rat     | 1400 mg/kg              |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)            |         |                         |
| <b><u>Acute</u></b>                                       |         |                         |
| <b>Dermal</b>   |         |                         |
| LD50  | Rabbit  | > 10000 mg/kg, 24 Hours |

|   |  |
|---|--|
| <b>Skin corrosion/irritation</b>                                      | Prolonged skin contact may cause temporary irritation.   |
| <b>Serious eye damage/eye irritation</b>                              | Direct contact with eyes may cause temporary irritation.   |
| <b>Respiratory or skin sensitization</b>                              |  |
| <b>Respiratory sensitization</b>                                      | Not a respiratory sensitizer.  |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.  |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| <b>Carcinogenicity</b>  | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.                                  |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         |  |
| d-limonene (CAS 5989-27-5)  | 3 Not classifiable as to carcinogenicity to humans.  |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b> |  |
| Not listed.   |  |
| <b>US. National Toxicology Program (NTP) Report on Carcinogens</b>    |  |
| Not listed.   |  |
| <b>Reproductive toxicity</b>  | This product is not expected to cause reproductive or developmental effects.                                     |
| <b>Specific target organ toxicity - single exposure</b>               | Not classified.  |
| <b>Specific target organ toxicity - repeated exposure</b>             | Not classified.  |
| <b>Aspiration hazard</b>  | Not an aspiration hazard.  |
| <b>Chronic effects</b>  | Prolonged inhalation may be harmful.   |
| <b>Further information</b>  | 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)            |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| 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) |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| Fish  | LC50    | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 2.9 mg/l, 96 hours           |
| d-limonene (CAS 5989-27-5)                                |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| 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)                             |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| Fish  | LC50    | Fathead minnow (Pimephales promelas)                | 337 - 352 mg/l, 96 hours     |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)            |         |   |                              |
| <b>Aquatic</b>  |         |   |                              |
| 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](http://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

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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.)

**In Case of Emergency** Tel: +1 800-443-9536  
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.

|   |  |
|---|--|
| <b>Ingestion</b>  | Rinse mouth. Get medical attention if symptoms occur.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Direct contact with eyes may cause temporary irritation.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Treat symptomatically.   |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

## 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).                                   |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.    |
| <b>General fire hazards</b>  | No unusual fire or explosion hazards noted.   |

## 6. Accidental release measures

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.   |
| <b>Methods and materials for containment and cleaning up</b>               | <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> |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.  |

## 7. Handling and storage

|   |  |
|---|--|
| <b>Precautions for safe handling</b>                                | Avoid prolonged exposure. Observe good industrial hygiene practices.                                   |
| <b>Conditions for safe storage, including any incompatibilities</b> | 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/m3 | Oil mist |

| US. Workplace Environmental Exposure Level (WEEL) Guides Components | Type | Value    | Form     |
|---|------|----------|----------|
| Propylene Glycol (CAS 57-55-6)                                      | TWA  | 10 mg/m3 | Aerosol. |

|  |   |
|--|---|
| <b>Biological limit values</b>   | No biological exposure limits noted for the ingredient(s).  |
| <b>Appropriate engineering controls</b>                                      | 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. |
| <b>Individual protection measures, such as personal protective equipment</b> |   |
| <b>Eye/face protection</b>   | Wear safety glasses with side shields (or goggles).   |
| <b>Skin protection</b>   |   |
| <b>Hand protection</b>   | Wear appropriate chemical resistant gloves.   |
| <b>Other</b>   | Wear suitable protective clothing.  |
| <b>Respiratory protection</b>  | In case of insufficient ventilation, wear suitable respiratory equipment.   |
| <b>Thermal hazards</b>   | Wear appropriate thermal protective clothing, when necessary.   |
| <b>General hygiene considerations</b>  | 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

|                       |                        |
|-----------------------|------------------------|
| <b>Physical state</b> | Liquid.                |
| <b>Form</b>           | Liquid.                |
| <b>Color</b>          | 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.

|                                  |   |
|----------------------------------|---|
| <b>Auto-ignition temperature</b> | Not available.  |
| <b>Decomposition temperature</b> | Not available.  |
| <b>Viscosity</b>                 | Not available.  |
| <b>Other information</b>         |   |
| <b>Explosive properties</b>      | Not explosive.  |
| <b>Oxidizing properties</b>      | Not oxidizing.  |
| <b>Specific gravity</b>          | 0.995   |
| <b>VOC</b>                       | 0 % per US State and Federal Consumer Product Regulations |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.    |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.  |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                                      |
| <b>Conditions to avoid</b>                | Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Strong oxidizing agents.   |
| <b>Hazardous decomposition products</b>   | Carbon oxides.   |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Not available.   |
| <b>Skin contact</b> | No adverse effects due to skin contact are expected.     |
| <b>Eye contact</b>  | Direct contact with eyes may cause temporary irritation. |
| <b>Ingestion</b>    | 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)         |         |                                   |
| <b>Acute</b>  |         |                                   |
| <b>Dermal</b>   |         |                                   |
| LD50  | Rabbit  | > 2000 mg/kg                      |
| <b>Oral</b>   |         |                                   |
| LD50  | Rat     | 1.1 g/kg                          |
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5)            |         |                                   |
| <b>Acute</b>  |         |                                   |
| <b>Dermal</b>   |         |                                   |
| LD50  | Rat     | > 2000 mg/kg, 24 Hours            |
| <b>Inhalation</b>   |         |                                   |
| <i>Vapor</i>  |         |                                   |
| LC50  | Rat     | > 100 mg/m <sup>3</sup> , 6 Hours |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) |         |                                   |
| <b>Acute</b>  |         |                                   |
| <b>Dermal</b>   |         |                                   |
| LD50  | Rabbit  | > 2000 mg/kg                      |
| <b>Inhalation</b>   |         |                                   |
| <i>Vapor</i>  |         |                                   |
| LC50  | Rat     | > 0.1 mg/l, 8 Hours               |

| Components  | Species  | Test Results            |
|---|--|-------------------------|
| <b>Oral</b><br>LD50   | Rat  | > 5000 mg/kg            |
| D-limonene (CAS 5989-27-5)  |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Oral</b><br>LD50   | Rat  | > 2000 mg/kg            |
| Glycerin (CAS 56-81-5)  |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Oral</b><br>LD50   | Rat  | 18000 mg/kg             |
| Phenoxyethanol (CAS 122-99-6)   |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Dermal</b><br>LD50   | Rabbit   | > 2200 mg/kg, 24 Hours  |
| <b>Oral</b><br>LD50   | Rat  | 1400 mg/kg              |
| Propylene Glycol (CAS 57-55-6)  |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Dermal</b><br>LD50   | Rabbit   | > 2000 mg/kg, 24 Hours  |
| <b>Oral</b><br>LD50   | Rat  | 22000 mg/kg             |
| Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)                        |  |                         |
| <b>Acute</b>  |  |                         |
| <b>Dermal</b><br>LD50   | Rabbit   | > 10000 mg/kg, 24 Hours |
| <b>Oral</b><br>LD50   | Rat  | > 1300 mg/kg            |
| <b>Skin corrosion/irritation</b>                                      | Prolonged skin contact may cause temporary irritation.   |                         |
| <b>Serious eye damage/eye irritation</b>                              | Direct contact with eyes may cause temporary irritation.   |                         |
| <b>Respiratory or skin sensitization</b>                              |  |                         |
| <b>Respiratory sensitization</b>                                      | Not a respiratory sensitizer.  |                         |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.  |                         |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |                         |
| <b>Carcinogenicity</b>  | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.                                  |                         |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         |  |                         |
| D-limonene (CAS 5989-27-5)  | 3 Not classifiable as to carcinogenicity to humans.  |                         |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b> |  |                         |
| Not listed.   |  |                         |
| <b>US. National Toxicology Program (NTP) Report on Carcinogens</b>    |  |                         |
| Not listed.   |  |                         |
| <b>Reproductive toxicity</b>  | This product is not expected to cause reproductive or developmental effects.                                     |                         |
| <b>Specific target organ toxicity - single exposure</b>               | Not classified.  |                         |
| <b>Specific target organ toxicity - repeated exposure</b>             | Not classified.  |                         |
| <b>Aspiration hazard</b>  | Not available.   |                         |
| <b>Chronic effects</b>  | 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)         |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <i>Acute</i>  |      |  |                              |
| Fish  | LC50 | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss) | 0.05 - 0.089 mg/l, 96 hours  |
| Alcohols, C12-15, ethoxylated (CAS 68131-39-5)            |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <i>Acute</i>  |      |  |                              |
| Crustacea   | EC50 | Water flea (Ceriodaphnia dubia)                        | 0.37 - 0.43 mg/l, 48 hours   |
| Fish  | LC50 | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss) | 0.96 - 1.4 mg/l, 96 hours    |
| Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <i>Acute</i>  |      |  |                              |
| Fish  | LC50 | Bluegill (Lepomis macrochirus)                         | 2.2 mg/l, 4 days             |
| D-limonene (CAS 5989-27-5)                                |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <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)                                    |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <i>Acute</i>  |      |  |                              |
| Fish  | LC50 | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss) | 51000 - 57000 mg/l, 96 hours |
| Phenoxyethanol (CAS 122-99-6)                             |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <i>Acute</i>  |      |  |                              |
| Fish  | LC50 | Fathead minnow (Pimephales promelas)                   | 337 - 352 mg/l, 96 hours     |
| Propylene Glycol (CAS 57-55-6)                            |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <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)            |      |  |                              |
| <b>Aquatic</b>  |      |  |                              |
| <i>Acute</i>  |      |  |                              |
| Fish  | LC50 | Rainbow trout,donaldson trout<br>(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

|  |  |
|--|--|
| <b>Disposal instructions</b>                 | Collect and reclaim or dispose in sealed containers at licensed waste disposal site.   |
| <b>Local disposal regulations</b>            | Dispose in accordance with all applicable regulations.   |
| <b>Hazardous waste code</b>                  | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Waste from residues / unused products</b> | 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). |
| <b>Contaminated packaging</b>                | 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](http://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.



## Safety Data Sheet (SDS)

Product: Soapstone

current version: 1.0.1 – dated 09.05.2015

| <b>1. Identification of the substance / product and of the company/undertaking</b> |  |
|--|--|
| 1.1 Product identifier: Soapstone  |  |
| Product code / art.-nr.:   | 004287 (Round 5x1/4") and 004286 (Flat 5x1/2x3/16")  |
| 1.2 Relevant identified uses of the substance or mixture and uses advised against: | For the temporary marking of metal surfaces during welding and fabrication   |
| 1.3 Details of the supplier of the safety data sheet:                              | <p>Uniweld Products, Inc.<br/>           2850 Ravenswood Road<br/>           Fort Lauderdale, FL 33312-4994, U.S.A.<br/>           Tel: +1 954-584-2000<br/>           Fax: +1 954-587-0109</p> <p>Emergency Telephone Numbers. USA and Canada – CHEMTREC (800) 424-9300<br/>           Outside USA and Canada – CHEMTREC +1(703) 527-3887</p> |

| <b>2. Hazards identification</b>                |                             |
|---|-----------------------------|
| 2.1 Classification of the substance or mixture: | Not classified              |
| 2.2 Label elements:                             | No hazard pictogram is used |
| 2.3 Other hazards:                              | Not determined              |

| <b>3. Composition / information on ingredients</b> |                    |
|--|--------------------|
| 3.1 Substances:                                    | <u>% by weight</u> |
| SiO <sub>2</sub>                                   | > 60%              |
| MgO  | > 30%              |
| Fe <sub>2</sub> O <sub>3</sub>                     | < 2%               |
| 3.2 Mixtures:                                      | Not determined     |
| Chemical characterization:                         | Not determined     |
| Hazardous ingredients:                             | None               |
| 3.3 Other information:                             | Not determined     |

| <b>4. First aid measures</b>  |   |
|---|---|
| 4.1 Description of first aid measures:  | Eye Contact: Flush eyes with water as a precaution. Inhalation: If breathed in, remove to fresh air                                     |
| 4.1 Most important symptoms and effects, both acute and delayed:                | Breathing difficulty, headache, nausea, dryness or irritation of nose, throat, eyes, burning sensation of skin or eyes, unconsciousness |
| 4.3 Indication of any immediate medical attention and special treatment needed: | Remove to fresh air, if breathing impaired, assisted respiration may be required, seek medical attention                                |

|  |
|--|
| <b>5. Firefighting measures</b>  |
| 5.1 Extinguishing media:<br>Sand, Carbon dioxide, water                      |
| 5.2 Special hazards arising from the substance or mixture:<br>Not determined |
| 5.3 Advice for firefighters:<br>Not determined                               |

|   |
|---|
| <b>6. Accidental release measures</b>   |
| 6.1 Personal precautions, protective equipment and emergency procedures:<br>Use personal protective equipment. Ensure adequate ventilation. Avoid breathing dust. Remove to fresh air |
| 6.2 Environmental precautions:<br>Store in cool / dry area  |
| 6.3 Methods and material for containment and cleaning up:<br>Sweep and remove, alert to hotness   |
| 6.4 Reference to other sections:<br>No  |

|  |
|--|
| <b>7. Handling and storage</b>   |
| 7.1 Precautions for safe handling:<br>Avoid contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed |
| 7.2 Conditions for safe storage, including any incompatibilities:<br>Store in cool / dry area  |
| 7.3 Specific end use(s):<br>Not determined   |

|   |
|---|
| <b>8. Exposure controls / personal protection</b> |
| 8.1 Control parameters:<br>No data available      |
| 8.2 Exposure controls:<br>No data available       |

|  |
|--|
| <b>9. Physical and chemical properties</b>   |
| 9.1 Information on basic physical and chemical properties:<br>Solid. Insoluble in water                              |
| 9.2 Other information:<br>white stick in round, square, flat, no odor. Specific gravity : 2.6 ~ 2.8g/cm <sup>3</sup> |

|  |
|--|
| <b>10. Stability and reactivity</b>            |
| 10.1 Reactivity:<br>No data available          |
| 10.2 Chemical stability:<br>Stable             |
| 10.3 Possibility of hazardous reactions:<br>No |
| 10.4 Conditions to avoid:<br>None              |
| 10.5 Incompatible materials:<br>Not determined |
| 10.6 Hazardous decomposition products:<br>None |

|   |
|---|
| <b>11. Toxicological information</b>                            |
| 11.1 Information on toxicological effects:<br>No data available |

| <b>12. Ecological information</b>   |
|---|
| 12.1 Toxicity:<br>No data available   |
| 12.2 Persistence and degradability:<br>No data available                        |
| 12.3 Bioaccumulative potential:<br>No data available                            |
| 12.4 Mobility in soil:<br>No data available                                     |
| 12.5 Results of PBT and vPvB assessment:<br>No data available                   |
| 12.6 Other adverse effects:<br>No known significant effects or critical hazards |
| 12.7 Other information:<br>No   |

| <b>13. Disposal considerations</b>  |
|---|
| 13.1 Waste treatment methods:<br>Dispose of in accordance with local, state and federal regulations |

| <b>14. Transport information</b>  |
|---|
| 14.1 Transport ADR/RID/ADN – UN-number:<br>Not regulated  |
| 14.2 Transport IMDG:<br>Not regulated   |
| 14.3 Transport ICAO-TI / IATA:<br>Not regulated   |
| 14.4 Other information:<br>No   |
| 14.5 Environmental hazards:<br>No   |
| 14.6 Special precautions for user:<br>No  |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:<br>Not regulated |

| <b>15. Regulatory information</b>  |
|--|
| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:<br>Not determined |
| 15.2 Chemical safety assessment:<br>Not determined   |

| <b>16. Other information</b>   |
|--|
| This information (SDS) is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Therefore Uniweld Products, Inc. assumes no responsibility for personal damage caused by the product. Users assume all risks associated with use. |

Validated and verified by Uniweld Products, Inc.  
9 May 2015



# MATERIAL SAFETY DATA SHEET

For Welding Consumables and Related Products  
Essentially Similar to U.S. Department of Labor Form OSHA 20  
(to comply with OSHA Hazard Communication Standard 29 CFR 1910.1200)

## SECTION I – IDENTIFICATION

Manufacturer/Supplier Name: UNIBRAZE CORP.  
Address: 1050 PENNER CREST, HOUSTON, TX 77055  
Emergency Phone: (713) 869-6000, 1-800-364-6900  
Product Type: **Soapstone**  
Classification: N/A

## SECTION II - HAZARDOUS MATERIALS

IMPORTANT: This section covers the materials from which the product is manufactured. The fumes and gases produced during welding with the normal use of this product are covered under Section V.

Mineral & Rare Earth 100%

## SECTION III - PHYSICAL DATA

|                        |   |                                |     |
|------------------------|---|--------------------------------|-----|
| Boiling Point          | N/A   | Specific Gravity               | N/A |
| Vapor Pressure (mm Hg) | N/A   | Percent Volatile by Volume (%) | N/A |
| Vapor Density          | N/A   | Evaporation Rate               | N/A |
| Appearance             | Solid white/gray color/various shapes/sizes |                                |     |

## SECTION IV – FIRE AND EXPLOSION HAZARD DATA

|                                  |                               |
|----------------------------------|-------------------------------|
| Flash Point                      | N/A                           |
| Extinguishing Media              | Will not burn – Cool in water |
| Special Fire Fighting Procedures | N/A                           |
| Unusual Fire & Explosion Hazard  | N/A                           |

## SECTION V – REACTIVITY DATA

|                                  |        |
|----------------------------------|--------|
| Stability                        | Stable |
| Materials to avoid               | N/A    |
| Conditions to avoid              | N/A    |
| Hazardous Decomposition Products | N/A    |
| Hazardous Polymerization         | N/A    |

## SECTION VI– HEALTH HAZARD DATA

Effects of Overexposure & Emergency First Aid Procedures N/A

## SECTION VII – SPILL OR LEAK PROCEDURE

Waste Disposal Procedure Normal, Environmentally acceptable, land fill, burial, etc.

## SECTION VIII– SPECIAL PROTECTION

Eye Protection Safety goggles

## SECTION IX – Special Precautions

Handling & Storage N/A

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Unibraze believes that information set forth in this Material Safety Data Sheet is accurate. Unibraze makes no warranty, expressed or implied, with respect thereto and disclaims any liability from reliance therein.

# SAFETY DATA SHEET (SDS)

As per criteria of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS),  
OSHA Hazard Communication Standard 29 CFR 1910.1200

SDS No. RSS-02

## SECTION 1 – IDENTIFICATION

**Product:** Soapstone Markers

**Use:** Temporary marking on metal surfaces

**Supplier:** Radnor Products, P.O. Box 6675, Radnor, PA 19087 U.S.A.

**Customer Service:** 866-734-3438      **Emergency Phone:** CHEMTREC: 1800-424-9300

**Dated:** March 2015

## SECTION 2 – HAZARDS IDENTIFICATION

### Potential Health Effects

Primary Exposure Route: Inhalation

### Acute Effects:

Eyes: None Expected. Avoid eye contact.

Skin: None Expected. Wear gloves

Ingestion: None Expected. Avoid eating or drinking while using it.

Inhalation: Possible irritation. Use dust mask

Carcinogenicity: Not Applicable

Hazardous ingredient: No known

As shipped this material is odorless, nonflammable, non-explosive and non-hazardous. Read and understand the manufacturer's instructions and precautionary label on this product and your employer's safety practices. See foot notes in section 15

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients: Natural Stone 100%, solid flat or round, whitish or gray in color.

## SECTION 4 – FIRST AID MEASURES

**Eye Contact:** In case of direct contact, flush eyes with generous amounts of water for at least 15 minutes. See a physician if redness of irritation persists. Wear safety glasses or goggles as precaution.

**Skin Contact:** Wash affected area thoroughly with soap and water. Use gloves and appropriate clothing to prevent skin contact.

**Inhalation:** Use particle resistant mask or seek medical help immediately.

**Ingestion:** Ingestion is unlikely under normal circumstances. Have the person thoroughly wash out mouth with water.

## SECTION 5 – FIRST AID MEASURES

**Fire Fighting Measures:** Not Flammable. Use extinguishing media appropriate to surrounding fire conditions.

**Flash Point (method):** Not Applicable

**Auto ignition Temperature:** Not Applicable

**LEL:** Not Applicable. **UEL:** Not Applicable

**Flammability and Classification:** Not Applicable

**Hazardous Combustion Products:** Not Applicable

**Fire-Fire fighting instructions/Equipment:** **Keep Personnel removed and upwind of any fire. Wear full fire fighting turn out gear**

**Ingestion:** Ingestion is unlikely under normal circumstances. Have the person thoroughly wash mouth with water.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Material release or Spill:** Avoid spreading it or trying to blow it away. Use a vacuum to contain the dust and wear personal protective equipment.

Wetting of spilled material may be necessary to contain it.

Prevent spilled material or wetted material from inadvertently entering drains, sewers or streams.

Collect and dispose of waste materials in accordance with applicable federal, state, provincial and local environmental laws and regulations.

Train all personnel on handling and safety rules in case of spill. Use the personal protection and controls identified in see section 8 as appropriate.

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## SECTION 7 – HANDLING AND STORAGE

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**Handling Precautions:** Use recommended personal protective equipment (see Section 7). Wash thoroughly after handling.

**Storage Requirements:** Store safely in a cool dry area, away from incompatible chemicals (see Section 9)

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## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Personal Protection:** Use of personal protective equipment is recommended.

**Eyes:** Wear safety glasses or goggles as minimum protection.

**Skin:** Use of gloves is recommended for people with sensitive skin.

**Respiratory Protection:** Wear a dust mask if using soapstone in large quantities or if dust occurs.

**Hygiene:** Do not eat or drink while using soapstone markers. Wash dust exposed skin thoroughly with soap and water. Avoid breathing dust or eye contact.

**Engineering Controls:** Dust levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls including (but not limiting to) use of PPE, general ventilation or exhaust ventilation if working in confined area.

| Ingredient  | CAS No. | %   |
|---|---------|-----|
| Soapstone (respirable or dust)                        | N/A     | 100 |
| ACGIH TLV: TWA (respirable dust) = 3mg/m <sup>3</sup> |         |     |
| OSHA PEL: 20mppcf                                     |         |     |
| NIOSH REL: 3mg/m <sup>3</sup>                         |         |     |

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance:** White or gray in color.

**Odor:** None

**Physical State:** Solid; < 10% tremolite, < 1% silica, crystalline

**Molecular Weight:** 379

**Incompatibilities:** None Hazardous

**Specific Gravity:** (H<sub>2</sub>O=1): >1

**Water Solubility:** Insoluble

**pH:** N/A

**Flash Point:** N/A

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## SECTION 10 – STABILITY AND REACTIVITY

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**Stability:** Stable

**Hazardous Polymerization:** Will not occur

**Incompatibility:** None under normal usage

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## SECTION 11 – TOXICOLOGICAL INFORMATON

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**Carcinogenicity:** Not listed

**Teratogenicity:** Not listed

**Irritancy:** Soapstone (inhalable, respirable or dust)

ACGIH: TWA (inhalable) = 6mg/m<sup>3</sup>; (respirable) = 3mg/m<sup>3</sup>

**Mutagenicity:** Not listed

**Sensitizing Capability:** None known

**Reproductive Effects:** None known

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## SECTION 12 – ECOCOLOGICAL INFORMATON

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**Ecotoxicity:** Not determined

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**SECTION 13 – DISPOSAL CONSIDERATIONS**

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**Waste:** Dispose of in accordance with appropriate Federal, State, and local regulations.

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**SECTION 14 – TRANSPORT INFORMATION**

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**D.O.T (US):** Not regulated

**Hazardous Labeling:** Not regulated

As shipped these markers are odorless, nonflammable, non explosive and not hazardous.

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**SECTION 15 – REGULATORY INFORMATION**

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**Footnotes for section 2:**

1 Subject to reporting requirements of SARA Title III, section 313.

2 Appears on the California Safe Drinking Water and Toxic Enforcement Act (prop65) substance list.

3 Appears on the Massachusetts substance list.

4 Appears on the New Jersey Right-To-Know Hazardous substances list

5 Appears in the Pennsylvania Hazardous substance list

6 Appears in the Canadian WHMID ingredient disclosure list.

TSCA: All ingredients of this product are listed on the U.S. EPA TSCA (Toxic Substances Control Act) Chemical Substance Inventory)

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**SECTION 16 – OTHER INFORMATION**

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**Disclaimer of Expressed and Implied Warranties:** The information in this document is believed to be correct as of the date issued. However, no warranty of the merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product or the hazards related to its use.

HMIS ratings: Health 1 Flammability: 0 Reactivity: 0

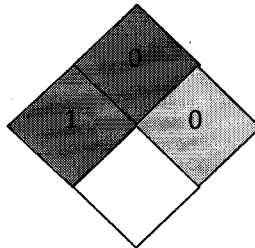
Material Identification:

National Fire Protection Association NFPA, (U.S.)

Health - 1

Flammability - 0

Reactivity - 0







## Safety Data Sheet California CARB Compliant

### 1 - Identification

|  |   |
|--|---|
| <p><b>Product Name:</b> WD-40 Multi-Use Product Aerosol</p> <p><b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p><b>Restrictions on Use:</b> None identified</p> <p><b>SDS Date Of Preparation:</b> March 5, 2019</p> | <p><b>Manufacturer:</b> WD-40 Company</p> <p><b>Address:</b> 9715 Businesspark Avenue<br/>San Diego, California, USA<br/>92131</p> <p><b>Telephone:</b></p> <p><b>Emergency:</b> 1-888-324-7596</p> <p><b>Information:</b> 1-888-324-7596</p> <p><b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec)<br/>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<br>64742-65-0<br>64742-53-6<br>64742-54-7<br>64742-71-8 | <35%           | Not Hazardous   |
| Aliphatic Hydrocarbon     | 64742-47-8   | <25%           | Flammable Liquid Category 3<br>Aspiration Toxicity Category 1<br>Specific Target Organ Toxicity<br>Single Exposure Category 3<br>(nervous system effects) |
| Carbon Dioxide            | 124-38-9   | 2-3%           | Simple Asphyxiant<br>Gas Under Pressure,<br>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 <sup>3</sup> TWA (manufacturer recommended)   |
| Petroleum Base Oil        | 5 mg/m <sup>3</sup> TWA (Inhalable) ACGIH TLV (as Mineral oil)<br>5 mg/m <sup>3</sup> TWA OSHA PEL (as Oil mist, mineral) |
| Aliphatic Hydrocarbon     | 1200 mg/m <sup>3</sup> TWA (manufacturer recommended)   |
| Carbon Dioxide            | 5000 ppm TWA, 30,000 ppm STEL ACGIH TLV<br>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:<br>(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-<br>octanol/water: | Not established        |
| Flash Point:            | 138°F (59°C) Tag Closed<br>Cup (liquid) | Autoignition<br>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%<br>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

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Regulatory Affairs Dept.

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