

Safety Data Sheets

All

All

Duke Energy - Gibson

01/11/2022

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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]:



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 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

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

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

- Overview** Exposure with the product may cause skin, eye, and respiratory tract irritation. See section 2 for further details.
- Eyes** 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
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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

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



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



TILLMAN™
The Brand Pros Demand

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
Email Address: bfec@buckeyef.com
Recommended Use: Fire suppression, not for human or animal drug use.
Emergency: CHEMTREC 1.800.424.9300
Revision Date: 08/05//2019

SECTION II. Hazard Identification

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

GHS – Classification (Pressurized):

Hazard Classification: Gas Under Pressure-Compressed Gas

GHS Label Elements:



Hazard Symbols:

Signal Word: WARNING

Hazard Statements: Contents Under Pressure: may explode if heated

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

GHS – Classification (Non-pressurized):

Eye Irritation: Category 2B

Skin Irritation: Category 5

Acute Toxicity-Inhalation: Category 5

GHS Label Elements:



Hazard Symbols:

Signal Word: WARNING

Hazard Statements:

H313 May be harmful in contact with skin.

H320 Causes eye irritation

H333 May be harmful if inhaled.

Precautionary Statements:

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

P102 Keep out of reach of children.

P234 Keep in original container.

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

P261 Avoid breathing dust

P264 Wash hands and face thoroughly after handling

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

P281 Use personal protective equipment as required

SAFETY DATA SHEET

ABC DRY CHEMICAL

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

SECTION III. Composition/Information on Ingredients

This product is a mixture.

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

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

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

SECTION IV. First Aid Measures

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

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

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

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

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

SECTION V. Firefighting Measures

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

Special Firefighting Procedures: N/A

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

Sensitivity to Mechanical Impact or Static Discharge: None

SECTION VI. Accidental Release Measures

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

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 Total Dust- 15 mg/m ³ Respirable Fraction- 5 mg/m ³	Particulates Not Otherwise Classified Total Dust- 10 mg/m ³ Respirable Fraction- 3 mg/m ³
Barium sulfate	Particulates Not Otherwise Classified Total Dust- 15 mg/m ³ Respirable Fraction- 5 mg/m ³	Particulates Not Otherwise Classified Total Dust- 10 mg/m ³ Respirable Fraction- 3 mg/m ³
Mica	6 mg/m ³	3 mg/m ³
Amorphous Silica	6 mg/m ³	10 mg/m ³
Stannous octoate	.1 mg/m ³	.1 mg/m ³
Silicone	Not Regulated	Not Regulated
Pigment	Not Regulated	Not Regulated

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

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

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

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

SECTION IX. Physical and Chemical Properties

Chemical Agent

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

Apparent Density: 0.82

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

pH: Approximately 4 -5

Flash Point: N/A

Flammability: N/A

Vapor Pressure: N/A

Boiling Point: N/A

Explosive or Oxidizing Properties: None

Expellant- Nitrogen

Appearance and Odor: Colorless and odorless.

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

Solubility: N/A

pH: N/A

Flash Point: Nonflammable

Flammability: Nonflammable

Vapor Pressure: N/A

Boiling Point: -321°F

Explosive or Oxidizing Properties: None

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

U.S. Federal Regulatory Information:

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

State Regulatory Information:

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

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

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

SECTION XVI. Other Information

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

HMIS RATINGS:

Health 1
Flammability 0
Reactivity 0

Personal Protective Equipment: use N-95 dust mask (See Section 8)

WHMIS (Canadian Workplace Hazardous Materials Identification)

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

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

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

Common Name: ABC DRY CHEMICAL FIRE EXTINGUISHANT

Manufacturer: BUCKEYE FIRE EQUIPMENT

SDS Revision Date: 4/1/2015

SDS Format: GHS-US

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

Manufacturer Model Number(s):

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SAFETY DATA SHEET

ABC DRY CHEMICAL

SECTION I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



PRODUCT NAME: ABC DRY CHEMICAL FIRE EXTINGUISHANT

SYNONYM: MULTI-PURPOSE DRY CHEMICAL

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

TELEPHONE: 704.739.7415

WEB ADDRESS: WWW.BUCKEYEFIRE.COM

EMAIL ADDRESS: BFEC@BUCKEYEF.COM

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

EMERGENCY:

CHEMTREC: 1.800.424.9300

REVISION DATE: 04/2015

SECTION II. HAZARD IDENTIFICATION



GHS - CLASSIFICATION:

EYE IRRITATION: CLASS 2B

SKIN IRRITATION: CLASS 3

INHALATION: CLASS 5

GHS LABEL ELEMENTS:

HAZARD SYMBOLS: EXCLAMATION MARK

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

H313: MAY BE HARMFUL IN CONTACT WITH SKIN.

H320: CAUSES EYE IRRITATION

H333: MAY BE HARMFUL IF INHALED.

PRECAUTIONARY STATEMENTS:

P101:

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

P102: KEEP OUT OF REACH OF CHILDREN.

P234: KEEP IN ORIGINAL CONTAINER.

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

P261: AVOID BREATHING DUST

P264: WASH HANDS AND FACE THOROUGHLY AFTER HANDLING

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

P281: USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED

P285: IN CASE OF INADEQUATE VENTILATION, WEAR RESPIRATORY PROTECTION

P301+322+331:

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

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

304+313+341:

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

305+351+338:

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

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

P401+402+403:

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

SECTION III. COMPOSITION/INFORMATION ON INGREDIENTS



THIS PRODUCT IS A MIXTURE.

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

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

SECTION IV. FIRST AID MEASURES



EYE EXPOSURE:

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

SKIN EXPOSURE:

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

INHALATION:

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

INGESTION:

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

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

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

SECTION V. FIREFIGHTING MEASURES



EXTINGUISHING MEDIA:

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

SPECIAL FIREFIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS:

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

SENSITIVITY TO MECHANICAL IMPACT OR STATIC DISCHARGE: NONE

SECTION VI. ACCIDENTAL RELEASE MEASURES



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

SECTION VII. HANDLING AND STORAGE



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

SECTION VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION



EXPOSURE GUIDELINES:

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

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

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

RESPIRATORY PROTECTION:

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

EYE PROTECTION:

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

SKIN PROTECTION:

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

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES



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

APPARENT DENSITY: 0.82

SOLUBILITY:

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

PH: APPROXIMATELY 4 -5

FLASH POINT: N/A

FLAMMABILITY: N/A

VAPOR PRESSURE: N/A

BOILING POINT: N/A

EXPLOSIVE OR OXIDIZING PROPERTIES: NONE

SECTION X. STABILITY AND REACTIVITY



STABILITY: STABLE

INCOMPATIBLES:

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

DECOMPOSITION PRODUCTS:

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

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARDOUS REACTIONS: NONE

SECTION XI. TOXICOLOGICAL INFORMATION



ACUTE TOXICITY:

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

TARGET ORGANS IN HUMANS:

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

CHRONIC TOXICITY:

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

REPRODUCTIVE TOXICITY:

THIS PRODUCT IS NOT KNOWN TO HAVE ANY REPRODUCTIVE EFFECTS.

SECTION XII. ECOLOGICAL INFORMATION



ECOTOXICITY:

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

DEGRADABILITY: DEGRADES RAPIDLY IN WET OR HUMID ENVIRONMENT.

BIOACCUMULATION: UNKNOWN EXTENT.

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

SECTION XIII. DISPOSAL CONSIDERATION



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

SECTION XIV. TRANSPORTATION INFORMATION



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

PLEASE NOTE:

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

SECTION XV. REGULATORY INFORMATION



INTERNATIONAL INVENTORY STATUS:

ALL INGREDIENTS ARE ON THE FOLLOWING INVENTORIES

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

EUROPEAN RISK AND SAFETY PHRASES:

EU CLASSIFICATION: HARMFUL

R PHRASES:

22: HARMFUL IF SWALLOWED

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

S PHRASES:

26:

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

36: WEAR SUITABLE PROTECTIVE CLOTHING

U.S. FEDERAL REGULATORY INFORMATION:

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

STATE REGULATORY INFORMATION:

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

ALASKA:

DESIGNATED TOXIC AND HAZARDOUS SUBSTANCES: NONE

CALIFORNIA:

PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS: NONE

FLORIDA:

SUBSTANCE LIST: MICA DUST

ILLINOIS:

TOXIC SUBSTANCE LIST: NONE

KANSAS:

SECTION 302/303 LIST: NONE

MASSACHUSETTS:

SUBSTANCE LIST: MICA DUST

MINNESOTA:

LIST OF HAZARDOUS SUBSTANCES: NONE

MISSOURI:

EMPLOYER INFORMATION/TOXIC SUBSTANCE LIST: NONE

NEW JERSEY:

RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST: NONE

NORTH DAKOTA:

LIST OF HAZARDOUS CHEMICALS, REPORTABLE QUANTITIES: NONE

PENNSYLVANIA:

HAZARDOUS SUBSTANCE LIST: NONE

RHODE ISLAND:

HAZARDOUS SUBSTANCE LIST: MICA DUST

TEXAS:

HAZARDOUS SUBSTANCE LIST: NO

WEST VIRGINIA:

HAZARDOUS SUBSTANCE LIST: NONE

WISCONSIN:

TOXIC AND HAZARDOUS SUBSTANCES: NONE

CALIFORNIA PROPOSITION 65:

NO COMPONENT IS LISTED ON THE CALIFORNIA PROPOSITION 65 LIST

SECTION XVI. OTHER INFORMATION



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

HMIS RATINGS:

HEALTH

1

FLAMMABILITY

0

REACTIVITY

0

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

WHMIS (CANADIAN WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION):

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

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



SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

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

Section 2. HAZARDS IDENTIFICATION

GHS – Classification

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

GHS – Label Symbol(s):

If Pressurized: Gas Under Pressure

GHS – Words(s): Warning

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

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

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

GHS – Hazard Phrases

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

*- If under pressure

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Emergency overview:

Light yellow, fine solid powder, odorless.

Adverse health effects and symptoms:

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

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

Section 4. FIRST AID MEASURES

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

Section 5. FIRE-FIGHTING MEASURES

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

Explosion Data:

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

Section 6. ACCIDENTAL RELEASE MEASURES

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

Section 7. HANDLING AND STORAGE

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

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Engineering Controls:

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment – PPE Code E:

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



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

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

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

Hygiene Measures:

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

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

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

NOTE: NH₄H₂PO₄ – Monoammonium Phosphate

Section 10. STABILITY AND REACTIVITY

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

Section 11. TOXICOLOGICAL INFORMATION

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

Acute Toxicity Values - Health

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

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

Other Toxicity Categories

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

Section 12. ECOLOGICAL INFORMATION

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

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

Aquatic Toxicity Values – Environment – Research

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

Aquatic Toxicity Values – Environment – Estimates

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

Section 13. DISPOSAL CONSIDERATIONS

Safe Handling

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

Waste Disposal Considerations

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

Contaminated Packaging

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

NOTES:

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

Section 14. TRANSPORT INFORMATION

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

IATA Not regulated

DOT Not regulated

NOTES:

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

Special Precautions for Shipping:

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

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

Section 15. REGULATORY INFORMATION

International Inventory Status: All ingredients are on the following inventories

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

REACH Title XVII Restrictions: No information available

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

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

European Risk and Safety phrases:

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

U.S. Federal Regulatory Information:

SARA 313:

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

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

SARA 311/312 Hazard Categories:

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

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

Clean Water/Clean Air Acts:

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

U.S. State Regulatory Information:

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

Alaska - Designated Toxic and Hazardous Substances: None

California – Permissible Exposure Limits for Chemical Contaminants: None

Florida – Substance List: Mica Dust

Illinois – Toxic Substance List: None

Kansas – Section 302/303 List: None

Massachusetts – Substance List: Mica Dust

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

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

Other:

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

Section 16. OTHER INFORMATION

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

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

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

11/10/2020

AEROKROIL

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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

SECTION 2: HAZARDS IDENTIFICATION

GHS / HAZCOM 2012 Classification:

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

Label Elements

DANGER!

Flammable aerosol.

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

Causes serious eye irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

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

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

Wash thoroughly after handling.

Contaminated clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection.

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

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

Take off contaminated clothing and wash it before reuse.

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

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

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

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

Store locked up.

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

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

SECTION 4: FIRST AID MEASURES

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

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

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

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

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

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

SECTION 5: FIRE FIGHTING MEASURES

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

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

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

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

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

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

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

SECTION 7: HANDLING AND STORAGE

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

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

PERSONAL PROTECTIVE EQUIPMENT:

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

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

EYE PROTECTION: Chemical safety goggles recommended.

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

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: None known.

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

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

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

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

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

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

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

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

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

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

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

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

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

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

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

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

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

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

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

Carbon Dioxide: Inhalation rat LC50 167857 ppm/4 hr

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: No toxicity data available for the product.

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

EC50 Pseudokirchnerella subcapitata > 100 mg/L

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

EL50 Pseudokirchnerella subcapitata 1.3 mg/L

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

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

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

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

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

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

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: None known

SECTION 13: DISPOSAL INFORMATION

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

Do not puncture or incinerate.

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

SECTION 14: TRANSPORT INFORMATION

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

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

Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:


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

STATE REPORTING REGULATIONS:

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

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

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

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

SARA TITLE III:

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

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

Section 302 Extremely Hazardous Substances (TPQ): None

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

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

SECTION 16: OTHER INFORMATION

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

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

SDS REVISION HISTORY: Updated formulation - Section 15

DATE OF PREPARATION: November 20, 2020

DATE OF LAST REVISION: July 01, 2020

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

11/10/2020

AEROKROIL

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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

SECTION 2: HAZARDS IDENTIFICATION

GHS / HAZCOM 2012 Classification:

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

Label Elements

DANGER!

Flammable aerosol.

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

Causes serious eye irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

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

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

Wash thoroughly after handling.

Contaminated clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection.

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

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

Take off contaminated clothing and wash it before reuse.

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

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

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

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

Store locked up.

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

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

SECTION 4: FIRST AID MEASURES

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

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

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

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

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

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

SECTION 5: FIRE FIGHTING MEASURES

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

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

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

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

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

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

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

SECTION 7: HANDLING AND STORAGE

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

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

PERSONAL PROTECTIVE EQUIPMENT:

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

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

EYE PROTECTION: Chemical safety goggles recommended.

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

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: None known.

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

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

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

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

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

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

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

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

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

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

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

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

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

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

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

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

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

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

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

Carbon Dioxide: Inhalation rat LC50 167857 ppm/4 hr

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: No toxicity data available for the product.

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

EC50 Pseudokirchnerella subcapitata > 100 mg/L

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

EL50 Pseudokirchnerella subcapitata 1.3 mg/L

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

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

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

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

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

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

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: None known

SECTION 13: DISPOSAL INFORMATION

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

Do not puncture or incinerate.

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

SECTION 14: TRANSPORT INFORMATION

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

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

Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:


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

STATE REPORTING REGULATIONS:

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

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

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

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

SARA TITLE III:

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

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

Section 302 Extremely Hazardous Substances (TPQ): None

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

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

SECTION 16: OTHER INFORMATION

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

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

SDS REVISION HISTORY: Updated formulation - Section 15

DATE OF PREPARATION: November 20, 2020

DATE OF LAST REVISION: July 01, 2020

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



Safety Data Sheet

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 12174-11-7	TWA: 1 mg/m ³ respirable particulate matter	-	-	-
Calcium carbonate 471-34-1	-	-	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust	-

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor): NIOSH IDLH Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection No special precautions are needed in handling this material.

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment.

Ventilation Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State	powder	Color	Yellow
Odor	odorless		
Odor Threshold	No data available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
Melting point/freezing point	No data available	
Boiling point / boiling range	No data available	
Flash Point	No data available	
Evaporation Rate	No data available	
Flammability (solid, gas)	No data available	
Flammability limit in air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	



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Vapor Pressure	No data available
Vapor Density	No data available
Specific gravity	No data available
Water Solubility	No data available
Solubility in Other Solvents	No data available
Partition coefficient	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Kinematic viscosity	No data available

10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Hazardous Polymerization	Hazardous polymerization does not occur.
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10.4. Conditions to Avoid

None known based on information supplied.

10.5. Incompatible Materials

Strong acids.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NO_x).

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

Inhalation	May cause irritation of respiratory tract.
Eye Contact	May cause irritation.
Skin contact	May cause irritation.
Ingestion	Ingestion may cause irritation to mucous membranes.

Component Information

Acute Toxicity



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Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium carbonate 471-34-1	= 6450 mg/kg (Rat)	-	-

11.2. Information on Toxicological Effects

Symptoms No information available.

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

Carcinogenicity Attapulgite (palygorskite fibers) is a hydrated magnesium aluminum silicate. Long palygorskite (attapulgite) fibers (>5 micrometers) are possibly carcinogenic to humans (Group 2B). Short palygorskite (attapulgite) fibers (<5 micrometers) cannot be classified as to their carcinogenicity to humans (Group 3). The attapulgite present in this product contains fibers 0.5-2.5 um range, so would be considered by IARC as Group 3. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.

Chemical name	ACGIH	IARC	NTP	OSHA
Attapulgite 12174-11-7	-	Group 3	-	X

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

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

X - Present

Reproductive Toxicity No information available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Target organ effects Eyes, Respiratory System, Skin.
Aspiration Hazard No information available.

11.4. Numerical Measures of Toxicity - Product information

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

ATEmix (dermal) 8156 mg/kg

12. Ecological Information

12.1. Ecotoxicity

Not classified.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ammonium sulfate, technical 7783-20-2	-	LC50 96 h 460 - 1000 mg/L Leuciscus idus static; LC50 96 h 123 - 128 mg/L Poecilia reticulata semi-static; LC50 96 h = 126 mg/L Poecilia reticulata; LC50 96 h > 100 mg/L Pimephales promelas; LC50 96 h 32.2 - 41.9 mg/L Oncorhynchus mykiss flow-through; LC50 96 h 5.2 - 8.2 mg/L Oncorhynchus mykiss static; LC50 96 h = 18 mg/L Cyprinus carpio; LC50 96 h = 480 mg/L Brachydanio rerio flow-through; LC50 96 h = 420 mg/L Brachydanio rerio semi-static; LC50 96 h = 250 mg/L Brachydanio rerio	LC50 48 h = 14 mg/L Daphnia magna; EC50 24 h = 423 mg/L Daphnia magna
Silicic Acid/silica gel, Amorphous	EC50 (72h) = 440 mg/L	LC50 (96h) static = 5000 mg/L	EC50 (48h) = 7600 mg/L



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7631-86-9	Pseudokirchneriella subcapitata	Brachydanio rerio	Ceriodaphnia dubia
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12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Other Adverse Effects

No information available

13. Disposal Considerations

13.1. Waste Treatment Methods

Disposal of wastes

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

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

14. Transport Information

DOT

UN/ID no	UN1044
Proper Shipping Name	Fire extinguishers
Description	UN1044, Fire extinguishers, 2.2
Hazard class	2.2
Special Provisions	18, 110
Emergency Response Guide Number	126

TDG

UN/ID no	UN1044
Description	UN1044, Fire extinguishers, 2.2
Proper Shipping Name	Fire extinguishers
Hazard class	2.2

MEX

UN/ID no	UN1044
Description	UN1044, Fire extinguishers, 2.2
Proper Shipping Name	Fire extinguishers
Hazard class	2.2

ICAO (air)

UN/ID no	UN1044
Description	UN1044, Fire extinguishers, 2.2



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Proper Shipping Name Fire extinguishers
Hazard class 2.2
Special Provisions A19

IATA

UN/ID no UN1044
Description UN1044, Fire extinguishers, 2.2
Proper Shipping Name Fire extinguishers
Hazard class 2.2
ERG Code 2L
Special Provisions A19

IMDG

UN/ID no UN1044
Description UN1044, Fire extinguishers, 2.2
Proper Shipping Name Fire extinguishers
Hazard class 2.2
EmS-No F-C, S-V
Special Provisions 225

15. Regulatory Information

15.1. International Inventories

TSCA Complies
DSL/NDSL Complies
ENCS Does not comply
IECSC Complies
KECL Does not comply
PICCS Complies
AICS Complies

Legend:

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

15.2. US Federal Regulations

SARA 313

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

Chemical name	SARA 313 - Threshold Values %
Ammonium dihydrogen phosphate - 7722-76-1	1.0
Ammonium sulfate, technical - 7783-20-2	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard No
Chronic health hazard No
Fire Hazard No
Sudden Release of Pressure Hazard Yes
Reactive Hazard No



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CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Attapulgite - 12174-11-7	Carcinogen

U.S. State Right-to-Know Regulations

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

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

NFPA	Health Hazards 0	Flammability 0	Instability 0	Physical and chemical properties -
HMIS	Health Hazards 0	Flammability 0	Physical Hazards 3	Personal Protection X

Revision date 13-Feb-2019

Revision note No information available.

Disclaimer

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

End of Safety Data Sheet



SAFETY DATA SHEET
Resinoid Bonded Abrasives
For Cutting and Grinding Metals
SDS #1

1. IDENTIFICATION

Product Identity / Trade Name: Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29),
Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18)
Mounted Point.

Product Use: Abrasive materials used for cutting and grinding metals.
Restriction on Use: Use only as directed

Manufacturer: United Abrasives, Inc.
185 Boston Post Road
North Windham, CT 06256

Internet: www.unitedabrasives.com

Information Phone: (860) 456-7131 **Emergency Phone:** (860) 456-7131

Date of Preparation: February 15, 2017

2. HAZARD(S) IDENTIFICATION

Classification: This product is not classified as hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Hazards not otherwise classified: Most of the dust/fumes generated in the cutting and grinding process is from the base material. The exposure to the dust/fumes from the material the potential hazard from this exposure must be evaluated.

Label Elements:
None required.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Aluminum Oxide	1344-28-1	0-95
Zirconium Oxide	1314-23-4	0-80
Cured Phenolic Resin	N/A	1-30
Nitrile Compounds	N/A	1-20
Fluoride Compounds	N/A	1-20
Iron Pyrite	12068-85-8	0-20
Woven Fiberglass	N/A	0-15
Calcium Compounds	N/A	0-15
Sulfur	7704-34-9	0-15
Calcium Oxide	1305-78-8	1-10

Cryolite	15096-52-3	1-10
Cured Epoxy Resin	N/A	1-10
Calcium Carbonate	1317-65-3	0-5
Iron Oxide	1309-37-1	0-5
Graphite	7782-42-5	0-5
Aluminum Potassium Fluoride	14484-69-6	0-0.5
Potassium Fluoroborate	14075-53-7	0.1-0.5
Titanium Dioxide	13463-67-7	0.1-0.5

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

4. FIRST-AID MEASURES

Ingestion: If grinding dust is swallowed, seek medical attention.

Inhalation: If overexposed to grinding dust, remove victim to fresh air and get medical attention.

Eye Contact: Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.

Skin Contact: Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

Most important symptoms/effects, acute and delayed: May cause mechanical eye and skin irritation. Inhalation of dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Prolonged overexposure may cause damage to the respiratory tract, bones and teeth by inhalation.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use any media that is appropriate for the surrounding fire.

Specific hazards arising from the chemical: This product is not combustible, however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions: Avoid release into the environmental. Report releases as required by local, state and federal authorities.

Methods and materials for containment and cleaning up: Pick up, sweep up or vacuum and place in a container for disposal. Minimize generation of dust.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Refer to ANSI B7.1, Safety Requirements for the Use, Care and Protection of Abrasive Wheels for additional information. Consider potential exposure to

components of the base materials or coatings being ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities: Store in accordance with ANSI B7.1. Protect abrasive wheels from damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

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

Note: Consider also components of base materials and coatings being ground.

Appropriate engineering controls: Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below occupational exposure limits.

Individual protection measures, such as personal protective equipment:

Respiratory protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin protection: Cloth or leather gloves recommended.

Eye protection: Safety goggles or face shield over safety glasses with side shields.

Other: Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Black, brown or reddish colored solid wheel.

Odor: No Odor

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

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: None known.

Incompatible materials: None known.

Hazardous decomposition products: Dust from grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:

Inhalation: Dust may cause respiratory irritation.

Ingestion: None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

Skin contact: None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

Eye contact: Dust may cause mechanical irritation.

Chronic effects from short- and long-term exposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged overexposure to fluorides may cause a bone condition, fluorosis. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

Carcinogenicity: Titanium Dioxide is listed by IARC as a group 2B Carcinogen (suspected human carcinogen). Nove of the other components is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Additional Information: This SDS is applicable to product from United Abrasives only. The material being processed must be evaluated to determine any potential hazard.

This product contains titanium dioxide which has caused cancer in rats after high level exposure and inhalation. No exposure to titanium dioxide has been detected through air sampling during tests to simulate use. Thus, there are no health effects associated with titanium dioxide during the normal use of this product.

Numerical measures of toxicity:

Aluminum Oxide: LD50 Oral rat >5,000 mg/kg

Zirconium Oxide: Oral rat LD50 >5000 mg/kg

Iron Pyrite: No toxicity data available

Sulfur: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 >5.43 mg/L/4 hr, Dermal rat LD50 >200 mg/L

Calcium Oxide: Oral rat LD50 >7340 mg/kg

Cryolite: LD50 Oral rat >5,000 mg/kg

Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

Calcium Carbonate: No toxicity data available

Iron Oxide: LD50 oral rat > 10000 mg/kg

Graphite: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 2 mg/L

Aluminum Potassium fluoride: LD50 oral rat 2150 mg/kg, LC50 inhalation rat > 3.4 mg/L, LD50 dermal rabbit > 2000 mg/kg.

Potassium Fluoroborate: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 5.3 mg/L

Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Aluminum Oxide: 96 hr LC50 Pimephales promelas 35 mg/L

Zirconium Oxide: 96 hr LC50 Danio rerio >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L

Iron Pyrite: No data available

Sulfur: 96 hr LC50 Oncorhynchus mykiss > 5 µg/L (solubility limit of sulfur), 48 hr EC50 daphnia magna > 5 µg/L (solubility limit of sulfur)

Calcium oxide: 96 hr LC50 Cyprinus carpio >1070 mg/L

Cryolite: No data available

Calcium Carbonate: No data available

Iron Oxide: No data available

Graphite: Danio rerio LC50 > 100 mg/L/96hr

Aluminum Potassium fluoride: Brachydanio rerio LC50 > 10 mg/L/96h

Potassium Fluoroborate: Leuciscus idus LC50: 760 mg/L/96hr

Titanium Dioxide: 48 hr EC50 daphnia magna >500 mg/L

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.

Bioaccumulative potential: No data available

Mobility in soil: No data available.

Other adverse effects: No hazards to the environment are expected from this product. However, consideration must be given to potential environment effects of the base material being processed.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to

determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	
TDG	None	Not Regulated	None	None	

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

Special precautions: None identified.

15. REGULATORY INFORMATION

SARA Section 311/312 Hazard Categories: Not Applicable (manufactured articles)

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting): None

California Proposition 65: WARNING! You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1* Flammability = 0 Physical Hazard = 0
 *Chronic health hazard

Date Previous Revision: 3/31/15

Date This Revision: 2/15/17

Revision Summary:

8/24/12: Section 3 Updated Composition, Section 8 Updated exposure limits, Section 11 Updated Acute toxicity values.

3/31/15: Changed all sections. Updated format to GHS.

9/30/16: Section 2 Classification, Hazard Phrases, Precautionary Phrases; Section 3 Composition; Section 8 Exposure guidelines; Section 11 Numerical measures of toxicity; Section 12 Ecotoxicity

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the user's obligation to assure safe use of this product.

1. IDENTIFICATION

Product Identity / Trade Name: Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29), Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18), Mounted Points, UA-MTX, UA-GFX, A36F, A54F.

Product Use: Abrasive materials used for cutting and grinding metals, concrete, masonry and building materials.

Restriction on Use: Use only as directed

Manufacturer: United Abrasives, Inc.
185 Boston Post Road
North Windham, CT 06256

Internet: www.unitedabrasives.com

Information Phone: (860) 456-7131 **Emergency Phone:** (860) 456-7131

Date of Preparation: March 31, 2015

2. HAZARD(S) IDENTIFICATION

As sold, this product is a manufactured article. During processing, dust generated has the following hazards:

Classification:

Physical	Health
Not Hazardous	Specific Target Organ Toxicity – Repeated Exposure Category 1 (Respiratory tract, teeth and bones) Carcinogen Category 2

Labeling Elements:



Danger

Hazard statement(s)

H351 Suspected of causing cancer by inhalation.
H372 Causes damage to respiratory tract, teeth and bones through prolonged or repeated exposure.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection.
P308+P313 IF exposed or concerned: Get medical attention.
P405 Store locked up.
P501 Dispose of contents in accordance with local, regional

and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Aluminum Oxide	1344-28-1	0-95
Silicon Carbide	409-21-2	0-95
Zirconium Oxide	1314-23-4	0-80
Cured Phenolic Resin	N/A	1-30
Nitrile Compounds	N/A	1-20
Fluoride Compounds	N/A	1-20
Iron Pyrite	12068-85-8	0-20
Woven Fiberglass	N/A	0-15
Calcium Compounds	N/A	0-15
Sulfur	7704-34-9	0-15
Calcium Oxide	1305-78-8	1-10
Cryolite	15096-52-3	1-10
Cured Epoxy Resin	N/A	1-10
Titanium Dioxide	13463-67-7	0-5
Calcium Carbonate	1317-65-3	0-5
Aluminum Potassium Fluoride	14484-69-6	0-5
Iron Oxide	1309-37-1	0-5
Graphite	7782-42-5	0-5
Potassium Fluoroborate	14075-53-7	0-5

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

4. FIRST-AID MEASURES

Ingestion: If grinding dust is swallowed, seek medical attention.

Inhalation: If overexposed to grinding dust, remove victim to fresh air and get medical attention.

Eye Contact: Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.

Skin Contact: Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

Most important symptoms/effects, acute and delayed: May cause mechanical eye and skin irritation. Inhalation of dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Suspected of causing cancer based on animal data. Prolonged overexposure may cause damage to the respiratory tract, bones and teeth by inhalation.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use any media that is appropriate for the surrounding fire.

Specific hazards arising from the chemical: This product is not combustible, however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions: Avoid release into the environmental. Report releases as required by local, state and federal authorities.

Methods and materials for containment and cleaning up: Pick up, sweep up or vacuum and place in a container for disposal. Minimize generation of dust.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Refer to ANSI B7.1, Safety Requirements for the Use, Care and Protection of Abrasive Wheels for additional information. Consider potential exposure to components of the base materials or coatings being ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities: Store in accordance with ANSI B7.1. Protect abrasive wheels from damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Aluminum Oxide	5 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)
Silicon Carbide	3 mg/m3 TWA ACGIH TLV (respirable fraction) 10 mg/m3 TWA ACGIH TLV (inhalable fraction) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)
Zirconium Oxide (as zirconium compounds)	5 mg/m3 TWA ACGIH TLV 10 mg/m3 STEL ACGIH TLV 5 mg/m3 TWA OSHA PEL
Cured Phenolic Resin	None Established
Nitrile Compounds	None Established
Fluoride Compounds	2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL
Iron Pyrite	None Established
Woven Fiberglass	5 mg/m3 TWA ACGIH TLV (inhalable) 1 f/cc TWA ACGIH TLV (respirable)
Calcium Compounds	None Established
Sulfur	None Established
Calcium Oxide	2 mg/m3 TWA ACGIH TLV 5 mg/m3 TWA OSHA PEL
Cryolite (as fluorides)	2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL
Cured epoxy resin	None Established
Titanium Dioxide	10 mg/m3 TWA ACGIH TLV 15 mg/m3 TWA OSHA PEL (total dust)
Calcium Carbonate	15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)

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

Note: Consider also components of base materials and coatings being ground.

Appropriate engineering controls: Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below occupational exposure limits.

Individual protection measures, such as personal protective equipment:

Respiratory protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin protection: Cloth or leather gloves recommended.

Eye protection: Safety goggles or face shield over safety glasses with side shields.

Other: Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Black, brown or reddish colored solid wheel.

Odor: No Odor

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

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: None known.

Incompatible materials: None known.

Hazardous decomposition products: Dust from grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:

Inhalation: Dust may cause respiratory irritation.

Ingestion: None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

Skin contact: None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

Eye contact: Dust may cause mechanical irritation.

Chronic effects from short- and long-term exposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged overexposure to fluorides may cause a bone condition, fluorosis. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

Carcinogenicity: Titanium Dioxide is listed by IARC as a group 2B Carcinogen (suspected human carcinogen). None of the other components is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Numerical measures of toxicity:

Aluminum Oxide: LD50 Oral rat >5,000 mg/kg

Silicon Carbide: Oral rat LD50 >2000 mg/kg, Dermal rat LD50 >2000 mg/kg

Zirconium Oxide: Oral rat LD50 >5000 mg/kg

Iron Pyrite: No toxicity data available

Sulfur: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 >5.43 mg/L/4 hr, Dermal rat LD50 >200 mg/L

Calcium Oxide: Oral rat LD50 >7340 mg/kg

Cryolite: LD50 Oral rat >5,000 mg/kg

Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

Calcium Carbonate: No toxicity data available

Aluminum Potassium fluoride: LD50 oral rat 2150 mg/kg, LC50 inhalation rat > 3.4 mg/L, LD50 dermal rabbit > 2000 mg/kg.

Iron Oxide: LD50 oral rat > 10000 mg/kg

Graphite: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 2 mg/L

Potassium Fluoroborate: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 5.3 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Aluminum Oxide: 96 hr LC50 Pimephales promelas 35 mg/L

Silicon Carbide: No data available

Zirconium Dioxide: 96 hr LC50 Danio rerio >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L, 72 hr

Iron Pyrite: No data available

Sulfur: 96 hr LC50 Oncorhynchus mykiss > 5 µg/L (solubility limit of sulfur), 48 hr EC50 daphnia magna > 5 µg/L (solubility limit of sulfur)

Calcium oxide: 96 hr LC50 Cyprinus carpio >1070 mg/L

Cryolite: No data available

Titanium Dioxide: 48 hr EC50 daphnia magna >500 mg/L

Calcium Carbonate: No data available

Aluminum Potassium fluoride: Brachydanio rerio LC50 > 10 mg/L/96h

Iron Oxide: No data available

Graphite: Danio rerio LC50 > 100 mg/L/96hr

Potassium Fluoroborate: Leuciscus idus LC50: 760 mg/L/96hr

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.

Bioaccumulative potential: No data available

Mobility in soil: No data available.

Other adverse effects: No hazards to the environment are expected from this product. However, consideration must be given to potential environment effects of the base material being processed.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	
TDG	None	Not Regulated	None	None	

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

Special precautions: None identified.

15. REGULATORY INFORMATION

SARA Section 311/312 Hazard Categories: Not Applicable (manufactured articles)

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting): None

California Proposition 65: WARNING! You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1* Flammability = 0 Physical Hazard = 0
*Chronic health hazard

Date Previous Revision: 8/24/12

Date This Revision: 3/31/15

Revision Summary:

8/24/12: Section 3 Updated Composition, Section 8 Updated exposure limits, Section 11 Updated Acute toxicity values.

3/31/15: Changed all sections. Updated format to GHS.

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the user's obligation to assure safe use of this product.

Safety Data Sheet



1. Identification

Product Name:	HPERF LSPR 6PK GLOSS RED-ORG FL MARKING	Revision Date:	8/6/2018
Product Identifier:	V2358838	Supersedes Date:	3/14/2018
Recommended Use:	Marking Paint/Aerosol		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

48% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	For specific treatment see label

GHS SDS PRECAUTIONARY STATEMENTS

P363 Wash contaminated clothing before reuse.

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	19	GHS08	H304
Propane	74-98-6	17	GHS04	H280
Hydrous Magnesium Silicate	14807-96-6	8.7	Not Available	Not Available
n-Butane	106-97-8	8.0	GHS04	H280
Acetone	67-64-1	7.3	GHS02-GHS07	H225-319-332-336
n-Butyl Acetate	123-86-4	3.6	GHS02-GHS07	H226-336

Hydrotreated Light Distillate	64742-47-8	3.1	GHS08	H304
Xylenes (o-, m-, p- isomers)	1330-20-7	1.6	GHS02-GHS07	H226-315-319-332
Ethylbenzene	100-41-4	0.4	GHS02-GHS07- GHS08	H225-304-332-351-373
Stoddard Solvent	8052-41-3	0.2	GHS08	H304-372
Methyl ethyl ketoxime	96-29-7	0.1	GHS05-GHS06- GHS08	H302-312-317-318-331-351

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: 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, 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. No unusual fire or explosion hazards noted. Keep containers tightly closed.

SPECIAL FIREFIGHTING PROCEDURES: Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. 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. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL- TWA	OSHA PEL- CEILING
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	20.0	N.E.	N.E.	N.E.	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	10.0	2 mg/m ³	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Acetone	67-64-1	10.0	250 ppm	500 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Stoddard Solvent	8052-41-3	1.0	100 ppm	N.E.	500 ppm	N.E.
Methyl ethyl ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: 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. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use 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

Appearance:	Aerosolized Mist	Physical State:	Liquid
Odor:	Solvent Like	Odor Threshold:	N.E.
Relative Density:	0.870	pH:	N.A.
Freeze Point, °C:	N.D.	Viscosity:	N.D.
Solubility in Water:	Slight	Partition Coefficient, n- octanol/water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	0.9 - 13.0
Boiling Range, °C:	-37 - 537	Flash Point, °C:	-96
Flammability:	Supports Combustion	Auto-ignition Temp., °C:	N.D.
Evaporation Rate:	Faster than Ether	Vapor Pressure:	N.D.
Vapor Density:	Heavier than Air		

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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.

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>
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
96-29-7	Methyl ethyl ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

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>
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:**CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Respiratory or Skin Sensitization

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

16. Other Information**HMIS RATINGS**

Health: 2* Flammability: 4 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 4 Instability: 0

Volatile Organic Compounds 524 g/L

SDS REVISION DATE: 8/6/2018

REASON FOR REVISION: Substance Chemical Name Changed
 Substance and/or Product Properties Changed in Section(s):
 02 - Hazard Identification
 03 - Composition/Information on Ingredients
 15 - Regulatory Information
 16 - Other Information
 Revision Statement(s) Changed

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

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet



1. Identification

Product Name:	HPERF LSPR 6PK GLOSS RED-ORG FL MARKING	Revision Date:	8/6/2018
Product Identifier:	V2358838	Supersedes Date:	3/14/2018
Recommended Use:	Marking Paint/Aerosol		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

48% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	For specific treatment see label

GHS SDS PRECAUTIONARY STATEMENTS

P363 Wash contaminated clothing before reuse.

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	19	GHS08	H304
Propane	74-98-6	17	GHS04	H280
Hydrous Magnesium Silicate	14807-96-6	8.7	Not Available	Not Available
n-Butane	106-97-8	8.0	GHS04	H280
Acetone	67-64-1	7.3	GHS02-GHS07	H225-319-332-336
n-Butyl Acetate	123-86-4	3.6	GHS02-GHS07	H226-336

Hydrotreated Light Distillate	64742-47-8	3.1	GHS08	H304
Xylenes (o-, m-, p- isomers)	1330-20-7	1.6	GHS02-GHS07	H226-315-319-332
Ethylbenzene	100-41-4	0.4	GHS02-GHS07- GHS08	H225-304-332-351-373
Stoddard Solvent	8052-41-3	0.2	GHS08	H304-372
Methyl ethyl ketoxime	96-29-7	0.1	GHS05-GHS06- GHS08	H302-312-317-318-331-351

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: 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, 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. No unusual fire or explosion hazards noted. Keep containers tightly closed.

SPECIAL FIREFIGHTING PROCEDURES: Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. 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. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL- TWA	OSHA PEL- CEILING
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	20.0	N.E.	N.E.	N.E.	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	10.0	2 mg/m ³	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Acetone	67-64-1	10.0	250 ppm	500 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Stoddard Solvent	8052-41-3	1.0	100 ppm	N.E.	500 ppm	N.E.
Methyl ethyl ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: 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. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use 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

Appearance:	Aerosolized Mist	Physical State:	Liquid
Odor:	Solvent Like	Odor Threshold:	N.E.
Relative Density:	0.870	pH:	N.A.
Freeze Point, °C:	N.D.	Viscosity:	N.D.
Solubility in Water:	Slight	Partition Coefficient, n- octanol/water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	0.9 - 13.0
Boiling Range, °C:	-37 - 537	Flash Point, °C:	-96
Flammability:	Supports Combustion	Auto-ignition Temp., °C:	N.D.
Evaporation Rate:	Faster than Ether	Vapor Pressure:	N.D.
Vapor Density:	Heavier than Air		

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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.

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>
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
96-29-7	Methyl ethyl ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

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>
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:**CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Respiratory or Skin Sensitization

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

16. Other Information**HMIS RATINGS**

Health: 2* Flammability: 4 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 4 Instability: 0

Volatile Organic Compounds 524 g/L

SDS REVISION DATE: 8/6/2018

REASON FOR REVISION: Substance Chemical Name Changed
 Substance and/or Product Properties Changed in Section(s):
 02 - Hazard Identification
 03 - Composition/Information on Ingredients
 15 - Regulatory Information
 16 - Other Information
 Revision Statement(s) Changed

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

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



Safety Data Sheet

Issue Date 12-Aug-2013

Revision Date: 01-Oct-2017

Version 1

1. IDENTIFICATION

Product Identifier

Product Name

Industrial Grade Silicone – Acetoxy Cure – Clear, White & Colors

Other means of identification

SDS #

RD-0080A

Product Code

08160I, 08260I Series

Recommended use of the chemical and restrictions on use

Recommended Use

Silicone Sealant.

Details of the supplier of the safety data sheet

Supplier Address

Red Devil, Inc.
4175 Webb Street
Pryor, Oklahoma 74361
www.reddevil.com

Emergency Telephone Number

Company Phone Number

918-825-5744

Fax: 918-825-5761

Emergency Telephone (24 hr)

INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Signal Word

Warning

Hazard Statements

Causes skin irritation

Causes serious eye irritation



Appearance Clear/opaque or colored paste

Physical State Paste

Odor Acetic Acid Odor (Vinegar odor)

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Get medical attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Hydroxy-terminated Dimethyl siloxane	70131-67-8	>50
Non-hazardous ingredients *	Proprietary	>10
Amorphous silica (glass)	7631-86-9	<13
Polydimethylsiloxane	63148-62-9	<10
Methyltriacetoxysilane	4253-34-3	<6
Titanium Dioxide	13463-67-7	<5
Ethyltriacetoxysilane	17689-77-9	<6

* Unlisted ingredients are not considered hazardous under the OSHA GHS Hazard Communication Standard (29 CFR 1910.1200). (Methyltriacetoxysilane) Observe limits for acetic acid formed during curing on exposure to water or humid air. (Silica, amorphous; Titanium Dioxide) Inhalation of particulates unlikely due to product's physical state.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes while holding the eyelid(s) open. Obtain medical attention.
Skin Contact	No health effects expected. If irritation does occur, flush with lukewarm, gently flowing water for 5 minutes. If irritation persists, obtain medical advice.
Inhalation	If symptoms are experienced remove source of contamination or move victim to fresh air. If irritation persists, obtain medical advice.
Ingestion	Rinse mouth thoroughly with water. If irritation or discomfort occurs, obtain medical advice.

Most important symptoms and effects

Symptoms	Causes skin irritation. May cause nose, throat & respiratory tract irritation. Direct contact with eyes may cause temporary irritation.
-----------------	---

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat according to person’s condition & specifics of exposure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Small Fire Use carbon dioxide (CO2), dry chemical or water spray.

Large Fire Use dry chemical, foam or water spray.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Carbon oxides & traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus & protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Observe all personal protection equipment recommendations described in Sections 5 & 8.

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. Use absorbent material to contain spill.

Methods for Clean-Up Wipe up or scrape up & 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 & federal laws & regulations may apply to releases & disposal of this material as well as those materials & items employed in the cleanup of releases. You will need to determine which federal, state & local laws & regulations are applicable. Sections 13 & 15 of this SDS provide information regarding certain federal & state requirements.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wash face, hands, and any exposed skin thoroughly after handling. Use personal protection recommended in Section 8. Use only in well-ventilated areas. Avoid contact with skin and eyes. Product evolves acetic acid (HOAc) when exposed to water or humid air.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep container closed & store away from water or moisture.
- Incompatible Materials** Oxidizing material can cause a reaction. Water, moisture or humid air can cause hazardous vapors to form as described in Section 8.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines Exposure guidelines / protective equipment are for routine handling and accidental spills

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Amorphous silica (glass) 7631-86-9	-	(vacated) TWA: 6 mg/m ³ <1% Crystalline silica TWA: 20 mppcf : (80)/(% SiO ₂) mg/m ³ TWA	IDLH: 3000 mg/m ³ TWA: 6 mg/m ³
Titanium Dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³

Other Information Acetic acid is formed upon contact w/ water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 10 ppm & ACGIH TLV: TWA 10 ppm, STEL 15 ppm.

Appropriate engineering controls

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. Good general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Safety glasses as a minimum for protection.
- Skin and Body Protection** Wear suitable protective clothing.
- Respiratory Protection** No special equipment needed.

General Hygiene Considerations Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. Handle in accordance with good industrial hygiene and safety practice. Wash @ mealtime & end of shift. Contaminated clothing & shoes should be removed as soon as practical & thoroughly cleaned before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Paste	Odor	Acetic Acid Odor (Vinegar odor)
Appearance	Clear/opaque or colored paste	Odor Threshold	Not determined
Color	Various	Remarks • Method	
Property	Values		
pH	Not determined		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not applicable		
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	Not determined	
Specific Gravity	~1.04	@ 25 °C (77 °F)
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Additional Information	Note: The above information is not intended for use in preparing product specifications	
VOC Content (%)	< 3%/wt (< 40 g/L)	

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

Incompatible Materials.

Incompatible Materials

Oxidizing material can cause a reaction. Water, moisture or humid air can cause hazardous vapors to form as described in Section 8.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides & traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde, Nitrogen oxides & metal oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact

Causes serious eye irritation.

Skin Contact

Causes skin irritation. Can be absorbed through the skin.

Inhalation

May cause irritation of respiratory tract.

Ingestion

Can be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Amorphous silica (glass) 7631-86-9	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Polydimethylsiloxane 63148-62-9	> 17 g/kg (Rat)	> 2 g/kg (Rabbit)	-
Methyltriacetoxysilane 4253-34-3	= 2060 mg/kg (Rat)	-	-
Titanium Dioxide 13463-67-7	> 10000 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**

The table below indicates whether each agency has listed any ingredient as a carcinogen. Titanium dioxide is a possible carcinogen when it appears as a respirable dust.

Chemical Name	ACGIH	IARC	NTP	OSHA
Amorphous silica (glass) 7631-86-9		Group 3		
Titanium Dioxide 13463-67-7		Group 2B		X

*IARC (International Agency for Research on Cancer)**Group 2B - Possibly Carcinogenic to Humans**Group 3 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

12. ECOLOGICAL INFORMATION**Ecotoxicity**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Amorphous silica (glass) 7631-86-9	440: 72 h Pseudokirchneriella subcapitata mg/L EC50	5000: 96 h Brachydanio rerio mg/L LC50 static		7600: 48 h Ceriodaphnia dubia mg/L EC50

Persistence/Degradability

Complete information is not yet available

Bioaccumulation

Complete information is not yet available

Mobility

Complete information is not yet available

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

Not determined

Legend:

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

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Not determined

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Titanium Dioxide - 13463-67-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Amorphous silica (glass) 7631-86-9	X	X	X
Titanium Dioxide 13463-67-7	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	1	1	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	1	0	0	B- Safety Glasses, Gloves

Issue Date: 12-Aug-2013
 Revision Date: 01-Oct-2017
 Revision Note: New format

Disclaimer

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

End of Safety Data Sheet



MARVEL OIL CO., INC.
2250 W. Pinehurst Blvd., STE 150
Addison, IL 60101

SAFETY DATA SHEET

1. Product and Company Identification

1.1 Product Identifier

Product Name: Marvel Air Tool Oil
Product Code (SKU): MM85R1 (50100), MM080R (50093) - See Section 15 for discontinued SKU's

1.2 Relevant Identified Uses Of The Substance

Product Use: Engine Oil Additive – Fuel additive (EPA Registered)

1.3 Details of the Supplier of the SDS

Company Name: Marvel Oil Company, Inc.
Street Address: 2250 W. Pinehurst Blvd., Suite 150
City, State, Zip Code: Addison, IL 60101

1.4 Emergency Telephone Numbers

Phone Number: 1(630)455-3700
Fax Number: 1(630)455-3868
Transportation: 1(800)424-9300 (CHEMTREC)
Medical Assistance: Call your local Poison Control Center

2. Hazard Identification:

2.1 Classification of the Substance or Mixture

Hazard Classification: Flammable liquid 3
Skin irritation 2
Reproductive Toxicity 2
Aspiration toxicity 1

2.2 Label Elements



Pictogram:

Signal Word: Danger

Hazard Statement: Flammable liquid and vapor. Causes skin irritation. Suspected of damaging fertility of the un-born child. May be fatal if swallowed and enters airways.

Precautionary Statement: Keep away from heat, sparks, open flames or hot surfaces. Do not smoke. Keep containers tightly closed. Ground all containers and receiving equipment. Use explosion proof electrical, ventilation, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static

discharge. Wear protective gloves, clothing, eye glasses and face shield. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. If exposed, get medical attention. If on skin or hair, remove immediately all contaminated clothing and launder before re-use. Wash skin with soap and water. If skin irritation occurs, get medical attention. If swallowed, immediately call a poison control center or doctor. Do NOT induce vomiting. Store in a well ventilated place. Dispose of contents and container in accordance with all local, state, national and international regulations.

2.3 Other Hazards

Description of additional HNOC: None

3. Information on Ingredients:

3.1 Substance not applicable

3.2 Mixture

<u>Component</u>	<u>CAS Number</u>	<u>Concentration (wt%)</u>
Petroleum Distillates (Hydrotreated Heavy Naphthenic)	64742-52-5	60-100%
Petroleum Distillates (Stoddard Solvent)	8052-41-3	10-30%
Tricresyl Phosphate	1330-78-5	0.1-1.0%
Ortho Dichlorobenzene	95-50-1	0.1-1.0%
Para Dichlorobenzene	106-46-7	<0.1%

4. First Aid Measures:

4.1 Description of First Aid Measures

Inhalation: Remove to fresh air and promote deep breathing. Get medical attention if effects persist or you feel un-well.

Skin: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and footwear. Launder clothing before re-use. Call a physician if irritation develops or persists.

Eyes: In case of eye contact, immediately flush eyes with plenty of water. Remove contact lenses if worn. If irritation persists, get medical attention

Ingestion: If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a poison control center or physician.

4.2 Most important symptoms and effects – acute and chronic

Inhalation: May cause respiratory tract irritation. Vapors may cause drowsiness or dizziness.

Skin: Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin.

Eyes: May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling.

Ingestion: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment

Symptoms may not appear immediately. Seek medical attention if effects develop or persist and you feel un-well.

5. Fire Fighting Measures:

5.1 Extinguishing media

Carbon dioxide, dry chemical, and alcohol foam

5.2 Special hazards arising from the substance or mixture

CO₂, CO, and hydrocarbons

5.3 Advice for Fire Fighters

Keep up wind of fire. Wear full firefighting turn out gear (full bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. See Section 8 for personal protection.

6. Accidental Release Measures:

6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate all source of ignition.

6.2 Methods and materials for containment and clean up

For containment: Contain and absorb spill with inert material. Place in suitable container for disposal. Do not flush to sewer or allow to enter waterways. See section 8 for PPE.

For clean up: Take up material and place in a suitable container. Vapors may be heavier than air and may travel along the ground to a distant source of ignition. Provide adequate ventilation.

7. Handling and Storage

7.1 Precautions for safe handling

Keep away from source of ignition. Do not smoke. Take precaution to eliminate static discharge. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Do not swallow. Do not eat or drink while handling. Wash hands with soap and water after handling. Use only non-sparking tools.

7.2 Conditions for safe storage including incompatibilities

Keep out of reach of children. Store in a well ventilated place. Do not store above 49°C (120°F).

7.3 Specific end uses

Shelf Life: Shelf life is considered to be 7 – 10 years when properly stored.

8. Exposure Control/Personal Protection:

8.1 Control parameters

<u>Exposure Limits</u>	<u>8 hr TWA:</u>	<u>(OSHA PEL)</u>	<u>(ACGIH TWA)</u>
Petroleum Distillates (Hydrotreated Heavy Naphthenic)		not applicable	not applicable
Petroleum Distillates (Stoddard Solvent)		500 ppm	100 ppm
Tricresyl Phosphate		not applicable	not applicable
Ortho Dichlorobenzene		50 ppm	25 ppm
Para Dichlorobenzene		75 ppm	10 ppm

8.2 Exposure controls

Use adequate ventilation to keep exposure below recommended limits. Ensure that eye wash station and safety shower are close to work station.

Hand Protection Equipment: Wear chemical resistant gloves to prevent skin contact.

Eye Protection Equipment: Wear safety glasses or splash goggles to prevent eye contact.

Skin and Body Protection: Wear suitable protective clothing.

Respiration/Ventilation Protection Requirements: Provide good ventilation.

Ingestion Protection Requirements: Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. Launder all clothing and foot wear before re-use.

9. Physical And Chemical Properties:

9.1 Information of basic chemical and physical properties

Physical Form:	thin liquid
Color:	clear red
Odor:	typical oily
Odor Threshold:	not available
pH:	not applicable – oil based product
Melting Point/Freeze Point:	-51°C (-60°F)
Initial Boiling Point:	not available
Flash Point (Seta Closed Cup):	53°C (128°F)
Flammability Limits:	Explosive Limits: Upper: not available Lower: not available
Evaporation Rate:	not available
Flammability Solid/Gas:	not applicable
Vapor Pressure:	not available
Vapor Density:	not available
Specific Gravity:	0.876
Solubility in Water:	insoluble
Auto Ignition Temperature:	not available
Partition coefficient (n/octonol/water):	not available
Viscosity (Kinimatic @ 100°C):	2.0 – 3.0 cSt

9.2 Other information

% NVM by Weight:	75.0%
% VOC Content (California):	24.92%

10. Stability and Reactivity:

10.1 Reactivity

Does not react under normal conditions

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Does not react under normal conditions

10.4 Conditions to avoid

Heat and incompatible materials

10.5 Incompatible materials

Strong oxidizers such as bleach and peroxides

10.6 Hazardous decomposition products

CO₂, CO and hydrocarbons

11. Toxicological Information:

11.1 Information on Toxicological effects

Marvel Mystery Oil

LD50 – Oral Rat >2000 mg/Kg
LD50 – Dermal Rabbit >2000 mg/Kg
LC50 – Inhalation Rat >20 mg/L (4 hr)

Petroleum Distillates Hydrotreated Heavy Naphthenic (64742-52-5)

LD50 – Oral Rat >5000 mg/Kg
LD50 – Dermal Rabbit >5000 mg/Kg
LC50 – Inhalation Rat >5 mg/L (4 hr)

Tricresyl Phosphate (1330-78-5)

LD50 – Oral Rat 3000 mg/Kg

o-Dichlorobenzene (95-50-1)

LD50 – Oral Rat 500 mg/Kg
LD50 – Dermal Rabbit >10000 mg/Kg
LC50 – Inhalation Rat 8.15 mg/L (4 hr)

p-Dichlorobenzene (106-46-7)

LD50 – Oral Rat >2000 mg/Kg
LD50 – Dermal Rabbit >2000 mg/Kg

Skin corrosion/irritation	Causes skin irritation
Serious eye damage/irritation	Based on available data, classification data are not met
Respiratory or skin sensitization	Based on available data, classification data are not met
Germ cell mutagenicity	Based on available data, classification data are not met
Carcinogenicity	Based on available data, classification data are not met

o-Dichlorobenzene (95-50-1) IARC Group 3 – Not Classified

p-dichlorobenzene (106-46-7)	IARC Group 2B – Possible carcinogen to humans. NTP 1-Evidence of Carcinogenicity 3, Reasonably anticipated to be a human Carcinogen
Reproductive toxicity	Suspected of damaging fertility of un-born child
Specific target organs – single exposure	Based on available data, classification data are not met
Specific target organs – repeated exposure	Based on available data, classification data are not met
Aspiration hazard	May be fatal if swallowed and enters air ways.
Symptoms/injuries after inhalation	May cause respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Symptoms/injuries after skin contact	Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin.
Symptoms/injuries after eye contact	May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling.
Symptoms/injuries after ingestion	May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting.

12. Ecological Information:

12.1 Toxicity

Not recommended for release into aquatic systems without treatment

12.2 Persistence and degradability

Not established

12.3 Bioaccumulative potential

Not established

12.4 Mobility in soil

Not established

12.5 Other adverse effects

None known

13. Disposal Considerations:

13.1 Waste treatment methods

RCRA Hazardous Waste:

Waste Disposal Method:

Waste Disposal Vessel:

Regulated as a hazardous waste (D-001 Ignitable).
Dispose of in accordance with local, state and federal regulations
Metal drums are recommended.

14. Transportation Information:

14.1 UN number

1268

14.2 UN Proper shipping name

Petroleum Distillate n.o.s.

14.3 Transport Hazard class

3

14.4 Packaging group

III

14.5 Marine Pollutant

No

14.6 Transportation in Bulk

Not applicable

14.7 Special precautions

Use limited quantities

15. Regulatory Information:

15.1 US Federal Regulations

TSCA Status: All ingredients are commercially available and listed by the manufacturer under TSCA.

15.2 Foreign Regulations

Canadian Status: All materials contained in this product are listed on the Canadian Domestic Substance List (DSL). Consult Turtle Wax, Inc. regarding status of ingredients.

European Union: All materials contained in this product are listed on EINECS.

AICS: All materials are registered for AICS (Australia)

15.3 State Regulations

State Regulatory Information:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements, contact the appropriate agency in your state.

California Prop 65:

<u>CAS Number</u>	<u>Concentration</u>	<u>State Code</u>
p-Dichlorobenzene (106-46-7)	<0.1%	Cancer

15.4 HMIS & NFPA Classifications

HMIS Classification:	Health	2
	Flammability	2
	Reactivity	0
NFPA Classification:	Health	2
	Flammability	2

Reactivity 0

15.5 Discontinued SKU's All discontinued SKU's used this same formula.

MM080, MM085, MM85R, MM086, MM088R, MM089

16. Other Information:

Reason For Issue	Address Update
Prepared By	James Heidel
Preparer's Title	Technical Director, R&D
SDS Administrator	Jean Mayszak - Technical Compliance Manager, R&D
Approval Date	January 26, 2017
Supersedes Date	March 10, 2015
Revision Number	#12

This information is, to the best of Turtle Wax, Inc.'s knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy oneself as to the suitability and completeness of such information for their own particular use.



MARVEL OIL CO., INC.
2250 W. Pinehurst Blvd., STE 150
Addison, IL 60101

SAFETY DATA SHEET

1. Product and Company Identification

1.1 Product Identifier

Product Name: Marvel Air Tool Oil
Product Code (SKU): MM85R1 (50100), MM080R (50093) - See Section 15 for discontinued SKU's

1.2 Relevant Identified Uses Of The Substance

Product Use: Engine Oil Additive – Fuel additive (EPA Registered)

1.3 Details of the Supplier of the SDS

Company Name: Marvel Oil Company, Inc.
Street Address: 2250 W. Pinehurst Blvd., Suite 150
City, State, Zip Code: Addison, IL 60101

1.4 Emergency Telephone Numbers

Phone Number: 1(630)455-3700
Fax Number: 1(630)455-3868
Transportation: 1(800)424-9300 (CHEMTREC)
Medical Assistance: Call your local Poison Control Center

2. Hazard Identification:

2.1 Classification of the Substance or Mixture

Hazard Classification: Flammable liquid 3
Skin irritation 2
Reproductive Toxicity 2
Aspiration toxicity 1

2.2 Label Elements



Pictogram:

Signal Word: Danger

Hazard Statement: Flammable liquid and vapor. Causes skin irritation. Suspected of damaging fertility of the un-born child. May be fatal if swallowed and enters airways.

Precautionary Statement: Keep away from heat, sparks, open flames or hot surfaces. Do not smoke. Keep containers tightly closed. Ground all containers and receiving equipment. Use explosion proof electrical, ventilation, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static

discharge. Wear protective gloves, clothing, eye glasses and face shield. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. If exposed, get medical attention. If on skin or hair, remove immediately all contaminated clothing and launder before re-use. Wash skin with soap and water. If skin irritation occurs, get medical attention. If swallowed, immediately call a poison control center or doctor. Do NOT induce vomiting. Store in a well ventilated place. Dispose of contents and container in accordance with all local, state, national and international regulations.

2.3 Other Hazards

Description of additional HNOC: None

3. Information on Ingredients:

3.1 Substance not applicable

3.2 Mixture

<u>Component</u>	<u>CAS Number</u>	<u>Concentration (wt%)</u>
Petroleum Distillates (Hydrotreated Heavy Naphthenic)	64742-52-5	60-100%
Petroleum Distillates (Stoddard Solvent)	8052-41-3	10-30%
Tricresyl Phosphate	1330-78-5	0.1-1.0%
Ortho Dichlorobenzene	95-50-1	0.1-1.0%
Para Dichlorobenzene	106-46-7	<0.1%

4. First Aid Measures:

4.1 Description of First Aid Measures

Inhalation: Remove to fresh air and promote deep breathing. Get medical attention if effects persist or you feel un-well.

Skin: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and footwear. Launder clothing before re-use. Call a physician if irritation develops or persists.

Eyes: In case of eye contact, immediately flush eyes with plenty of water. Remove contact lenses if worn. If irritation persists, get medical attention

Ingestion: If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a poison control center or physician.

4.2 Most important symptoms and effects – acute and chronic

Inhalation: May cause respiratory tract irritation. Vapors may cause drowsiness or dizziness.

Skin: Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin.

Eyes: May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling.

Ingestion: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment

Symptoms may not appear immediately. Seek medical attention if effects develop or persist and you feel un-well.

5. Fire Fighting Measures:

5.1 Extinguishing media

Carbon dioxide, dry chemical, and alcohol foam

5.2 Special hazards arising from the substance or mixture

CO₂, CO, and hydrocarbons

5.3 Advice for Fire Fighters

Keep up wind of fire. Wear full firefighting turn out gear (full bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. See Section 8 for personal protection.

6. Accidental Release Measures:

6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate all source of ignition.

6.2 Methods and materials for containment and clean up

For containment: Contain and absorb spill with inert material. Place in suitable container for disposal. Do not flush to sewer or allow to enter waterways. See section 8 for PPE.

For clean up: Take up material and place in a suitable container. Vapors may be heavier than air and may travel along the ground to a distant source of ignition. Provide adequate ventilation.

7. Handling and Storage

7.1 Precautions for safe handling

Keep away from source of ignition. Do not smoke. Take precaution to eliminate static discharge. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Do not swallow. Do not eat or drink while handling. Wash hands with soap and water after handling. Use only non-sparking tools.

7.2 Conditions for safe storage including incompatibilities

Keep out of reach of children. Store in a well ventilated place. Do not store above 49°C (120°F).

7.3 Specific end uses

Shelf Life: Shelf life is considered to be 7 – 10 years when properly stored.

8. Exposure Control/Personal Protection:

8.1 Control parameters

<u>Exposure Limits</u>	<u>8 hr TWA:</u>	<u>(OSHA PEL)</u>	<u>(ACGIH TWA)</u>
Petroleum Distillates (Hydrotreated Heavy Naphthenic)		not applicable	not applicable
Petroleum Distillates (Stoddard Solvent)		500 ppm	100 ppm
Tricresyl Phosphate		not applicable	not applicable
Ortho Dichlorobenzene		50 ppm	25 ppm
Para Dichlorobenzene		75 ppm	10 ppm

8.2 Exposure controls

Use adequate ventilation to keep exposure below recommended limits. Ensure that eye wash station and safety shower are close to work station.

Hand Protection Equipment: Wear chemical resistant gloves to prevent skin contact.

Eye Protection Equipment: Wear safety glasses or splash goggles to prevent eye contact.

Skin and Body Protection: Wear suitable protective clothing.

Respiration/Ventilation Protection Requirements: Provide good ventilation.

Ingestion Protection Requirements: Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. Launder all clothing and foot wear before re-use.

9. Physical And Chemical Properties:

9.1 Information of basic chemical and physical properties

Physical Form:	thin liquid
Color:	clear red
Odor:	typical oily
Odor Threshold:	not available
pH:	not applicable – oil based product
Melting Point/Freeze Point:	-51°C (-60°F)
Initial Boiling Point:	not available
Flash Point (Seta Closed Cup):	53°C (128°F)
Flammability Limits:	Explosive Limits: Upper: not available Lower: not available
Evaporation Rate:	not available
Flammability Solid/Gas:	not applicable
Vapor Pressure:	not available
Vapor Density:	not available
Specific Gravity:	0.876
Solubility in Water:	insoluble
Auto Ignition Temperature:	not available
Partition coefficient (n/octonol/water):	not available
Viscosity (Kinimatic @ 100°C):	2.0 – 3.0 cSt

9.2 Other information

% NVM by Weight:	75.0%
% VOC Content (California):	24.92%

10. Stability and Reactivity:

10.1 Reactivity

Does not react under normal conditions

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Does not react under normal conditions

10.4 Conditions to avoid

Heat and incompatible materials

10.5 Incompatible materials

Strong oxidizers such as bleach and peroxides

10.6 Hazardous decomposition products

CO₂, CO and hydrocarbons

11. Toxicological Information:

11.1 Information on Toxicological effects

Marvel Mystery Oil

LD50 – Oral Rat	>2000 mg/Kg
LD50 – Dermal Rabbit	>2000 mg/Kg
LC50 – Inhalation Rat	>20 mg/L (4 hr)

Petroleum Distillates Hydrotreated Heavy Naphthenic (64742-52-5)

LD50 – Oral Rat	>5000 mg/Kg
LD50 – Dermal Rabbit	>5000 mg/Kg
LC50 – Inhalation Rat	>5 mg/L (4 hr)

Tricresyl Phosphate (1330-78-5)

LD50 – Oral Rat	3000 mg/Kg
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o-Dichlorobenzene (95-50-1)

LD50 – Oral Rat	500 mg/Kg
LD50 – Dermal Rabbit	>10000 mg/Kg
LC50 – Inhalation Rat	8.15 mg/L (4 hr)

p-Dichlorobenzene (106-46-7)

LD50 – Oral Rat	>2000 mg/Kg
LD50 – Dermal Rabbit	>2000 mg/Kg

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/irritation

Based on available data, classification data are not met

Respiratory or skin sensitization

Based on available data, classification data are not met

Germ cell mutagenicity

Based on available data, classification data are not met

Carcinogenicity

Based on available data, classification data are not met

o-Dichlorobenzene (95-50-1)

IARC Group 3 – Not Classified

p-dichlorobenzene (106-46-7)	IARC Group 2B – Possible carcinogen to humans. NTP 1-Evidence of Carcinogenicity 3, Reasonably anticipated to be a human Carcinogen
Reproductive toxicity	Suspected of damaging fertility of un-born child
Specific target organs – single exposure	Based on available data, classification data are not met
Specific target organs – repeated exposure	Based on available data, classification data are not met
Aspiration hazard	May be fatal if swallowed and enters air ways.
Symptoms/injuries after inhalation	May cause respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Symptoms/injuries after skin contact	Cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of skin.
Symptoms/injuries after eye contact	May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tearing, with redness and swelling.
Symptoms/injuries after ingestion	May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea, and vomiting.

12. Ecological Information:

12.1 Toxicity

Not recommended for release into aquatic systems without treatment

12.2 Persistence and degradability

Not established

12.3 Bioaccumulative potential

Not established

12.4 Mobility in soil

Not established

12.5 Other adverse effects

None known

13. Disposal Considerations:

13.1 Waste treatment methods

RCRA Hazardous Waste:

Waste Disposal Method:

Waste Disposal Vessel:

Regulated as a hazardous waste (D-001 Ignitable).
Dispose of in accordance with local, state and federal regulations
Metal drums are recommended.

14. Transportation Information:

14.1 UN number

1268

14.2 UN Proper shipping name

Petroleum Distillate n.o.s.

14.3 Transport Hazard class

3

14.4 Packaging group

III

14.5 Marine Pollutant

No

14.6 Transportation in Bulk

Not applicable

14.7 Special precautions

Use limited quantities

15. Regulatory Information:**15.1 US Federal Regulations**

TSCA Status: All ingredients are commercially available and listed by the manufacturer under TSCA.

15.2 Foreign Regulations

Canadian Status: All materials contained in this product are listed on the Canadian Domestic Substance List (DSL). Consult Turtle Wax, Inc. regarding status of ingredients.

European Union: All materials contained in this product are listed on EINECS.

AICS: All materials are registered for AICS (Australia)

15.3 State Regulations**State Regulatory Information:**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements, contact the appropriate agency in your state.

California Prop 65:

<u>CAS Number</u>	<u>Concentration</u>	<u>State Code</u>
p-Dichlorobenzene (106-46-7)	<0.1%	Cancer

15.4 HMIS & NFPA Classifications

HMIS Classification:	Health	2
	Flammability	2
	Reactivity	0
NFPA Classification:	Health	2
	Flammability	2

Reactivity 0

15.5 Discontinued SKU's All discontinued SKU's used this same formula.

MM080, MM085, MM85R, MM086, MM088R, MM089

16. Other Information:

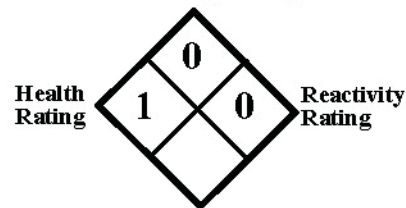
Reason For Issue	Address Update
Prepared By	James Heidel
Preparer's Title	Technical Director, R&D
SDS Administrator	Jean Mayszak - Technical Compliance Manager, R&D
Approval Date	January 26, 2017
Supersedes Date	March 10, 2015
Revision Number	#12

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MATERIAL SAFETY DATASHEET
ORGANIC BONDED GRINDING AND CUTTING WHEELS

Flammability Rating



HAZARD RATING

Please rate consistent with NFPA Code

SECTION 1 NAME AND PRODUCT

MANUFACTURER'S NAME: METABO CORPORATION	CONTACT: Terry Tuerk
ADDRESS (STREET, CITY, STATE AND ZIP CODE): 1231 WILSON DRIVE, WEST CHESTER, PA 19380	EMERGENCY TELEPHONE #: (800) 638-2264
TRADE NAME, COMMON NAME OR SPECIFICATION: ORGANIC BONDED GRINDING WHEELS	APPROVED BY:
CHEMICAL FAMILY OR PRODUCT TYPE: ANY GRADE	DATE: Update 8/28/2009

SECTION II COMPOSITION PER 29CFR 1910.1200 (G) (4)

CHEMICAL NAME	MAX %	COMMON NAME	REG* (Y/N)	CAS #	OSHA PERMISSIVE EXPOSURE LIMIT	ACGIH TLV	CARCINOGEN (Y/N)
Alpha-Alumina	90	Aluminum Oxide	Y	1344-28-1	10mg/m ³ (Total Dust)	10mg/m ³ (Total Dust)	N
Silicon Carbide	90	Silicon Carbide	Y	409-21-2	10mg/m ³ (Total Dust)	10mg/m ³ (Total Dust)	N
Zirconia Alumina	90	Zirconia Alumina	Y	70692-95-4	5mg/m ³ (as Zirconium)	5mg/m ³ (as Zirconium)	N
The grinding wheel may be comprised of 1 or more of the above abrasives. The chemicals listed below may be a part of the bond system.							
Fluorides (as F)	3	Cryolite	Y	15096-52-3	2.5mg/m ³	2.5mg/m ³	N
Pyrite FeS ₂	2	Pyrite	Y	1309-36-0	**NAIF	2.0mg/m ³	N
Glass, Fibrous or Dust	10	Fiberglass	Y	65997-17-3	15mg/m ³ -- Total Dust	10mg/m ³ -- Total Dust	N

SECTION III PHYSICAL AND CHEMICAL DATA

BOILING POINT **NAIF	MELTING POINT *NAIF	SPECIFIC GRAVITY 2-4
VAPOR PRESSURE **NAIF	PERCENT VOLATILE BY VOL **NAIF	VAPOR DENSITY **NAIF
EVAPORATION RATE **NAIF	SOLUBILITY IN WATER Slight	SOLUBILITY IN ALCOHOL **NAIF
SOLUBILITY IN OTHER SOLVENT **NAIF	APPEARANCE AND ODOR SOLID PRODUCT: MAY GIVE OFF ODOR IN USE.	

SECTION IV SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - NONE
 OTHER PRECAUTIONS: **NAIF

SECTION V CORROSIVITY AND REACTIVITY DATA

STABILITY: <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE	POLMERIZATION: <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR
INCOMPATIBILITY (MATERIALS TO AVOID). **NAIF	
DECOMPOSITION In use, dust and decomposing odors are generated. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.	
CONDITIONS TO BE AVOIDED. **NAIF	

* MATERIALS ARE REGULATED BY OSHA 29 CFR 1910.1200, HAZARD COMMUNICATION STANDARD

NAIF = NO APPLICABLE INFORMATION FOUND *N/A = NOT APPLICABLE

SECTION VI HEALTH, FIRST AID AND MEDICAL DATA

<i>PRIMARY ROUTE(S) OF ENTRY</i>	<i>ACUTE AND CHRONIC HEALTH EFFECTS AND EFFECTS OF OVEREXPOSURE</i>	<i>FIRST AID AND MEDICAL INFORMATION</i>
INHALATION (During Grinding)	ACUTE: POSSIBLE COUGH CHRONIC: MAY AFFECT BREATHING CAPACITY.	REMOVE TO FRESH AIR. ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN MEDICAL ASSISTANCE, IF NEEDED.
INGESTION (During Grinding)	NO KNOWN ADVERSE EFFECTS, BUT INGESTION NOT RECOMMENDED.	OBTAIN MEDICAL ASSISTANCE, IF NEEDED.
SKIN (During Grinding)	SOME MAY EXPERIENCE SKIN IRRITATION FROM DUST.	WASH AFFECTED AREAS WITH SOAP AND WATER. OBTAIN MEDICAL ASSISTANCE, IF NEEDED.
EYE (During Grinding)	DUST MAY IRRITATE EYES.	WASH WITH LARGE AMOUNTS OF WATER. OBTAIN FIRST AID AND MEDICAL ASSISTANCE, IF NEEDED.
OTHER POTENTIAL HEALTH RISKS (During Grinding)	GRINDING MAY CREATE ELEVATED SOUND LEVELS WHICH MAY AFFECT HEARING AND DUST WHICH MAY AGGRAVATE PREEXISTING RESPIRATORY CONDITIONS.	OBTAIN MEDICAL ASSISTANCE, IF NEEDED. REMOVE TO FRESH AIR.

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

VENTILATION	LOCAL	RECOMMENDED
	MECHANICAL (GENERAL)	RECOMMENDED
	OTHER	**NAIF
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 CONTACT WITH THIS MATERIAL.		
SEE SECTION VII & VIII		

SECTION IX FIRE AND EXPLOSION HAZARD DATA

FLASH POINT **NAIF	METHOD USED **N/A	FLAMMABLE LIMITS	LEL N/A	UEL ***N/A
EXTINGUISHING MEDIA		USE WATER		
SPECIAL FIRE FIGHTING PROCEDURES		NONE		
EXPLOSION POTENTIAL		**NAIF		

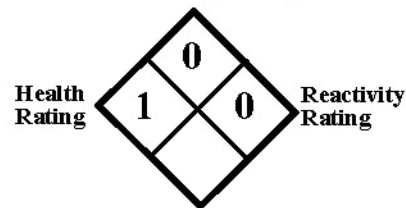
FOR COMPANY USE

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.



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: METABO CORPORATION	CONTACT: Terry Tuerk
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TRADE NAME, COMMON NAME OR SPECIFICATION: ORGANIC BONDED GRINDING WHEELS	APPROVED BY:
CHEMICAL FAMILY OR PRODUCT TYPE: ANY GRADE	DATE: Update 8/28/2009

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CHEMICAL NAME	MAX %	COMMON NAME	REG* (Y/N)	CAS #	OSHA PERMISSIVE EXPOSURE LIMIT	ACGIH TLV	CARCINOGEN (Y/N)
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Silicon Carbide	90	Silicon Carbide	Y	409-21-2	10mg/m ³ (Total Dust)	10mg/m ³ (Total Dust)	N
Zirconia Alumina	90	Zirconia Alumina	Y	70692-95-4	5mg/m ³ (as Zirconium)	5mg/m ³ (as Zirconium)	N
The grinding wheel may be comprised of 1 or more of the above abrasives. The chemicals listed below may be a part of the bond system.							
Fluorides (as F)	3	Cryolite	Y	15096-52-3	2.5mg/m ³	2.5mg/m ³	N
Pyrite FeS ₂	2	Pyrite	Y	1309-36-0	**NAIF	2.0mg/m ³	N
Glass, Fibrous or Dust	10	Fiberglass	Y	65997-17-3	15mg/m ³ -- Total Dust	10mg/m ³ -- Total Dust	N

SECTION III PHYSICAL AND CHEMICAL DATA

BOILING POINT **NAIF	MELTING POINT *NAIF	SPECIFIC GRAVITY 2-4
VAPOR PRESSURE **NAIF	PERCENT VOLATILE BY VOL **NAIF	VAPOR DENSITY **NAIF
EVAPORATION RATE **NAIF	SOLUBILITY IN WATER Slight	SOLUBILITY IN ALCOHOL **NAIF
SOLUBILITY IN OTHER SOLVENT **NAIF	APPEARANCE AND ODOR SOLID PRODUCT: MAY GIVE OFF ODOR IN USE.	

SECTION IV SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - NONE
 OTHER PRECAUTIONS: **NAIF

SECTION V CORROSIVITY AND REACTIVITY DATA

STABILITY: <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE	POLMERIZATION: <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR
INCOMPATIBILITY (MATERIALS TO AVOID). **NAIF	
DECOMPOSITION In use, dust and decomposing odors are generated. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.	
CONDITIONS TO BE AVOIDED. **NAIF	

* MATERIALS ARE REGULATED BY OSHA 29 CFR 1910.1200, HAZARD COMMUNICATION STANDARD
 NAIF = NO APPLICABLE INFORMATION FOUND *N/A = NOT APPLICABLE



Material Safety Data Sheet

Section I - Product and Company Identification

Supplier Name	Pyramex Safety Products, LLC
Address (number, street, state & zip code)	281A Moore Lane Collierville, TN 38017
Phone Number	1-800-736-8673
Fax Number	1-901-861-4967
Emergency Phone Number	Call INFOTRAC: 1-800-535-5053
Product Name	Pyramex Safety Lens Cleaning Towelette
Trade Names and Synonyms	Towelette , LCT1, LCT100, LCT100SP, LCTAHS, LCTFAS, LCTHAR, LCTWES, LCTSTA, LCC100
Date Issued	12/6/2007
Date Revised	12/3/2009

Section II - Hazards Identification

Potential Health Effects

Principal Routes of Exposure	Skin contact
Acute Toxicity	
Eyes	Vapor May cause irritation.
Inhalation	May be harmful if inhaled. Avoid breathing vapors. May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, and vomiting.
Skin	May be harmful in contact with skin. May cause irritation.
Ingestion	May be harmful if swallowed. May cause gastro-intestinal irritation, nausea, vomiting and diarrhea.
Chronic Effects	Avoid repeated exposure. Contains a known or suspected reproductive toxin.
Aggravated Medical Conditions	Central nervous system. Preexisting eye disorders. Blood Disorders. Kidney disorders. Liver disorders. Overexposure may cause female and male reproductive disorder(s). Skin Disorders. Respiratory disorders.
Interactions with other Chemicals	Use of Alcoholic beverages may enhance toxic effects.

Section III - Composition/Information on Ingredients

Component	CAS#	%(WT)
Water	773-18-5	60-85
Isopropyl Alcohol	67-63-0	10-30
Anti-Fog	56-81-5	<1
Anti-Static	68391-01-5	<1
Supplier Trade Secret	Proprietary	5-10

Section IV - First Aid Measures

EYES	Flush well with water, also under eyelids, for at least 15 minutes. Get Medical assistance if symptoms persist.
SKIN	Wash well with soap and water. If irritation persists, or allergic reaction occurs, call a physician.
Inhalation	Remove to fresh air and give oxygen if needed. If not breathing, give artificial respiration and call for Medical assistance.
Ingestion	DO NOT induce vomiting. Rinse Mouth. Drink Plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Notes to Physicians	Treat symptomatically

Section V - Fire-Fighting Measures			
Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
Uniform Fire Code	Irritant: Liquid Combustible Liquid III-B		
Flash Point	Not available		
Hazardous Byproducts of Combustion	Carbon oxides		
Explosion Data			
Sensitivity to Mechanical Impact	Not sensitive		
Sensitivity to Static Discharge	Yes		
Protective Equipment	Wear Self contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent), and full protective gear.		
Special Precautions - NFPA			
Health Hazard	2		
Flammability	1		
Stability	0		
Section VI - Accidental Release Measures			
Personal Precautions	Use personal protective equipment. Avoid contact with skin and eyes. Remove all sources of ignition.		
Containment Methods	Prevent further leakage or spillage if safe to do so.		
Clean-up Methods	Use personal protective equipment. Soak up with absorbent material. Pick up and transfer to properly labeled containers.		
Section VII - Handling and Storage			
Handling	Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin and clothing. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children.		
Storage	Keep container tightly closed. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of Children.		
Section VIII - Exposure Controls/Personal Protection			
Exposure Guidelines			
Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl Alcohol	+400 ppm STEL TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 1225 mg/m ³ (vacated) STEL: 500 ppm	IDLH: 2000 ppm 10% LEL TWA: 400 PPM TWA: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 PPM
Supplier Trade Secret	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ Skin	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
Engineering Measures		Showers. Eyewash Stations. Ventilation Systems	
Personal Protective Equipment			
Eye & Face Protection		No special equipment required	
Skin & Body Protection		Protective gloves	
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.	
Hygiene Measures		When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.	

Section IX - Physical and Chemical Properties

Appearance	White solid
Odor	Mild Alcohol Smell
Physical State	Solid. Solid containing liquid. Moist paper
pH	7

Section X - Stability and Reactivity

Stability	Stable under recommended storage conditions
Incompatibility (Material to Avoid)	Strong oxidizing agents. Acids. Chlorinated compounds
Conditions to Avoid	Heat, Flames, Sparks
Hazardous Decomposition or By-Products	Carbon oxides
Hazardous Polymerization	Will Not Occur

Section XI - Toxicological Information

Acute Toxicity	May be harmful by inhalation, ingestion or skin absorption
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Chemical Name	LD50 Oral	LD50 Dermal	LD50 Inhalation
Water	90 mL/kg (Rat)		
Isopropyl Alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 2270 mg/kg (Rabbit)	72.6mg/L (Rat) 4h
Supplier Trade Secret	470 mg/kg (Rat)	220 mg/kg (Rat) 2270 mg/kg (Rabbit)	2.21 mg/L (Rat) 4h 450 ppm (rat) 4h

Chronic Toxicity	Avoid repeated exposure. Contains a known or suspected reproductive toxin.
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Chemical Name	ACGIH	IARC	NTP	OSHA
Supplier Trade Secret	A3			

ACGIH: American Conference of Governmental Industrial Hygienists

A3: Animal Carcinogen

Target Organ Effects	Blood, Central Nervous System (CNS), Eyes, Hematopoietic System, Kidney, Liver, Respiratory System, Skin.
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Section XII - Ecological Information

Ecotoxicity
The environmental impact of this product has not been fully investigated. Ecotoxicity effects of component substances follows:

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Isopropyl Alcohol	EC50>1000mg/L 72h EC50>1000mg/L 96h	LC50=61200 mg/L Pimephales promelas 96h LC50=94900 mg/L Pimephales promelas 96h LC50=9640 mg/L Pimephales promelas 96h	EC > 5035390 mg/L 5 min.	EC50 = 13299 mg/L 48h
Supplier Trade Secret		LC50=1490 mg/L Lepomis macrochirus 96h		LC50 1698-1940 mg/L 24h EC50=1720 mg/L 24h

Chemical Name	Log Pow
Isopropyl Alcohol	=0.05 25A deg. C
Supplier Trade Secret	=0.81 25A deg. C

Section XIII - Disposal Considerations

Waste Disposal Methods	This material as supplied is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become 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.
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Contaminated Materials	Dispose of in accordance with local regulations.
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This product contains one or more substances that are listed with the State of California as a hazardous waste:

Chemical Name	California Hazardous Waste Status		
Isopropyl Alcohol	Toxic. Ignitable.		
Section XIV - Transport Information			
DOT, TDG, MEX, ICAO, ITAT, IMDG/IMO, RID, ADR, ADN - Product not regulated.			
Section XV - Regulatory Information			
International Inventories			
TSC -----Complies	IECSC -----Does not comply		
DSL -----Does not comply	KECL -----Does not comply		
EINECS/ELINCS ---Does not comply	PICCS -----Does not comply		
ENCS -----Does not comply	AICS -----Does not comply		
U.S. Federal Regulations			
SARA 313			
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following 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	CAS No.	% by Weight	SARA 313 - Threshold Values %
Isopropyl Alcohol	67-63-0	10-30	1
Supplier Trade Secret	Proprietary	5-10	1
SARA 313/312 Hazard Categories			
Acute Health Hazard	Yes		
Chronic Health Hazard	Yes		
Fire Hazard	No		
Sudden Pressure Release Hazard	No		
Reactive Hazard	No		
Clean Water Act			
This Product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)			
Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Isopropyl Alcohol			X
Clean Air Act, Sec. 112 Hazardous Air Pollutants (HAPS)(see 40 CFR 61)			
This product contains the following substances which are listed hazardous air pollutants (HAPS) under Sec. 112 of the Clean Air Act.			
Chemical Name	CAS No.	% by Weight	HAPs Data
Supplier Trade Secret	Proprietary	5-10	Present (includes mono-and di-ethers of ethylene glycol and triethylene glycol, except ethylene glycol monobutyl ether [EGBE]. See 40 CFR 63.62 for redefinition of glycol ethers listed as hazardous air pollutants.
VOC Chemicals			
Group I			
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.			

U.S. State Regulations**California Proposition 65**

This Product does not contain any Proposition 65 Chemicals.

International Regulations**Mexico - Grade**

Moderate risk - Grade 2

Chemical Name	Carcinogen Status	Exposure Limits
Isopropyl Alcohol		Mexico: TWA=26 ppm
		Mexico: TWA=120 mg/m3
		Mexico: STEL=360 mg/m3
		Mexico: STEL=75 ppm
Supplier Trade Secret		Mexico: TWA=400 ppm
		Mexico: TWA=980 mg/m3
		Mexico: STEL=1225 mg/m3
		Mexico: STEL=500 ppm

Canada

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

WHMIS Hazard Class

B3 Combustible Liquid
D2B Toxic Materials

Chemical Name	National Pollutant Release Inventory
Isopropyl Alcohol	X
Supplier Trade Secret	X

Section XVI - Other Information

Disclaimer: The information in this MSDS was obtained from sources, which we believe are reliable. However, the information is provided without any representation or 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.



SAFETY DATA SHEET

1. Identification

Product identifier	SCRUBS® Hand Cleaner Towels
Other means of identification	
Part Number	42201, 42210, 42225, 42230, 42232, 42256, 42260, 42272, 42274, 42280
Recommended use	A deep cleaning hand cleaner towel designed for removing heavy dirt, oil and greases from hands.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	ITW Pro Brands
Address	805 E. Old 56 Highway Olathe, KS 66061
Country	(U.S.A.) Tel: +1 800-443-9536
In Case of Emergency	1-800-535-5053 (Infotrac)

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Alcohols, C12-15, ethoxylated		68131-39-5	1 - 3
Distillates Petroleum Hydrotreated Light		64742-47-8	1 - 3
d-limonene		5989-27-5	1 - 3
Neopentyl Glycol		126-30-7	0.1 - 1
Phenoxyethanol		122-99-6	0.1 - 1
Sodium Dodecanol Sulfosuccinate		577-11-7	0.1 - 1

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Mechanically pick up material and place in a proper container for disposal. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA

Components	Type	Value	Form
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	PEL	5 mg/m ³	Oil mist

ACGIH

Components	Type	Value	Form
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	TWA	5 mg/m ³	Oil mist

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Colorless-blue / white

Odor Citrus

Odor threshold Not available.

pH 6

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Miscible.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Specific gravity 0.995

VOC 0 % per US State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
Alcohols, C12-15, ethoxylated (CAS 68131-39-5)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 0.1 mg/l, 8 Hours
Oral		
LD50	Rat	> 5000 mg/kg
d-limonene (CAS 5989-27-5)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
Neopentyl Glycol (CAS 126-30-7)		
Acute		
Oral		
LD50	Rat	> 6400 mg/kg
Phenoxyethanol (CAS 122-99-6)		
Acute		
Dermal		
LD50	Rabbit	> 2200 mg/kg, 24 Hours
Oral		
LD50	Rat	1400 mg/kg
Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)		
Acute		
Dermal		
LD50	Rabbit	> 10000 mg/kg, 24 Hours

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
d-limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.
Further information	This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Alcohols, C12-15, ethoxylated (CAS 68131-39-5)		
Aquatic		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 0.37 - 0.43 mg/l, 48 hours
Fish	LC50	Channel catfish (Ictalurus punctatus) 1.04 - 1.39 mg/l, 96 hours
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.9 mg/l, 96 hours
d-limonene (CAS 5989-27-5)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex) 69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours
Phenoxyethanol (CAS 122-99-6)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 337 - 352 mg/l, 96 hours
Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 20 - 40 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

d-limonene	4.232
Phenoxyethanol	1.16

Mobility in soil Not established.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

General information This material is not regulated by any mode of transportation.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04-11-2019

Revision date 06-03-2019

Version # 02

Disclaimer

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Accidental release measures: Methods and materials for containment and cleaning up
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
HazReg Data: International Inventories
GHS: Classification



SAFETY DATA SHEET

1. Identification

Product identifier SCRUBS® Hand Cleaner Towels

Other means of identification

Part Number 42201, 42210, 42225, 42230, 42232, 42256, 42260, 42272, 42274, 42280

Recommended use A deep cleaning hand cleaner towel designed for removing heavy dirt, oil and greases from hands.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ITW Pro Brands

Address 805 E. Old 56 Highway
Olathe, KS 66061

Country (U.S.A.)

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 Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Alcohols, C12-15, ethoxylated		68131-39-5	1 - 3
Distillates Petroleum Hydrotreated Light		64742-47-8	1 - 3
d-limonene		5989-27-5	1 - 3
Neopentyl Glycol		126-30-7	0.1 - 1
Phenoxyethanol		122-99-6	0.1 - 1
Sodium Dodecanol Sulfosuccinate		577-11-7	0.1 - 1

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Mechanically pick up material and place in a proper container for disposal. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA Components

	Type	Value	Form
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	PEL	5 mg/m ³	Oil mist

ACGIH Components

	Type	Value	Form
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	TWA	5 mg/m ³	Oil mist

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Colorless-blue / white

Odor Citrus

Odor threshold Not available.

pH 6

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Miscible.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Specific gravity 0.995

VOC 0 % per US State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
Alcohols, C12-15, ethoxylated (CAS 68131-39-5)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 0.1 mg/l, 8 Hours
Oral		
LD50	Rat	> 5000 mg/kg
d-limonene (CAS 5989-27-5)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
Neopentyl Glycol (CAS 126-30-7)		
Acute		
Oral		
LD50	Rat	> 6400 mg/kg
Phenoxyethanol (CAS 122-99-6)		
Acute		
Dermal		
LD50	Rabbit	> 2200 mg/kg, 24 Hours
Oral		
LD50	Rat	1400 mg/kg
Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)		
Acute		
Dermal		
LD50	Rabbit	> 10000 mg/kg, 24 Hours

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
d-limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.
Further information	This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species		Test Results
Alcohols, C12-15, ethoxylated (CAS 68131-39-5)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.37 - 0.43 mg/l, 48 hours
Fish	LC50	Channel catfish (Ictalurus punctatus)	1.04 - 1.39 mg/l, 96 hours
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours
d-limonene (CAS 5989-27-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours
Phenoxyethanol (CAS 122-99-6)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	337 - 352 mg/l, 96 hours
Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	20 - 40 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

d-limonene	4.232
Phenoxyethanol	1.16

Mobility in soil Not established.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

General information This material is not regulated by any mode of transportation.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04-11-2019

Revision date 06-03-2019

Version # 02

Disclaimer

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Accidental release measures: Methods and materials for containment and cleaning up
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
HazReg Data: International Inventories
GHS: Classification



SAFETY DATA SHEET

1. Identification

Product identifier	SCRUBS® In-A-Bucket Hand Cleaner Towels
Other means of identification	
Part Number	42201, 42210, 42230, 42232, 42256, 42260, 42272, 42274, 42280
Recommended use	A cleaner wipe designed for removing dirt and grease from hands.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	ITW Pro Brands
Address	805 E. Old 56 Highway Olathe, KS 66061
Country	(U.S.A.) Tel: +1 800-443-9536
In Case of Emergency	1-800-535-5053 (Infotrac)

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Not available.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates Petroleum Hydrotreated Light		64742-47-8	1 - 3
Sodium Dodecanol Sulfosuccinate		577-11-7	0.5 - 1
Dimethyl Glutarate		1119-40-0	< 0.5
D-limonene		5989-27-5	< 0.5
Phenoxyethanol		122-99-6	< 0.5

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.

Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Mechanically pick up material and place in a proper container for disposal.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA Components

Components	Type	Value	Form
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	PEL	5 mg/m3	Oil mist

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerin (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

ACGIH Components	Type	Value	Form
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	TWA	5 mg/m ³	Oil mist

US. Workplace Environmental Exposure Level (WEEL) Guides Components	Type	Value	Form
Propylene Glycol (CAS 57-55-6)	TWA	10 mg/m ³	Aerosol.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Colorless-blue / white

Odor Citrus

Odor threshold Not available.

pH 6

Melting point/freezing point Not available.

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density > 1

Relative density Not available.

Solubility(ies)

Solubility (water) Miscible.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.995
VOC	0 % per US State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Not available.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
3-iodo-2-propynyl-butylcarbamate (CAS 55406-53-6)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	1.1 g/kg
Alcohols, C12-15, ethoxylated (CAS 68131-39-5)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 100 mg/m ³ , 6 Hours
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 0.1 mg/l, 8 Hours

Components	Species	Test Results
Oral LD50	Rat	> 5000 mg/kg
D-limonene (CAS 5989-27-5)		
Acute Oral LD50	Rat	> 2000 mg/kg
Glycerin (CAS 56-81-5)		
Acute Oral LD50	Rat	18000 mg/kg
Phenoxyethanol (CAS 122-99-6)		
Acute Dermal LD50	Rabbit	> 2200 mg/kg, 24 Hours
Oral LD50	Rat	1400 mg/kg
Propylene Glycol (CAS 57-55-6)		
Acute Dermal LD50	Rabbit	> 2000 mg/kg, 24 Hours
Oral LD50	Rat	22000 mg/kg
Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)		
Acute Dermal LD50	Rabbit	> 10000 mg/kg, 24 Hours
Oral LD50	Rat	> 1300 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
D-limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not available.	
Chronic effects	Prolonged inhalation may be harmful.	

Further information

This product has no known adverse effect on human health.

12. Ecological information**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
3-iodo-2-propynyl-butylcarbamate (CAS 55406-53-6)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.05 - 0.089 mg/l, 96 hours
Alcohols, C12-15, ethoxylated (CAS 68131-39-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.37 - 0.43 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.96 - 1.4 mg/l, 96 hours
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Bluegill (Lepomis macrochirus)	2.2 mg/l, 4 days
D-limonene (CAS 5989-27-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours
Glycerin (CAS 56-81-5)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	51000 - 57000 mg/l, 96 hours
Phenoxyethanol (CAS 122-99-6)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Fathead minnow (Pimephales promelas)	337 - 352 mg/l, 96 hours
Propylene Glycol (CAS 57-55-6)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/l, 96 hours
Sodium Dodecanol Sulfosuccinate (CAS 577-11-7)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	20 - 40 mg/l, 96 hours

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential**Partition coefficient n-octanol / water (log Kow)**

D-limonene	4.57
Glycerin	-1.76
Phenoxyethanol	1.16
Propylene Glycol	-0.92

Mobility in soil

Not established.

Other adverse effects

None known.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

General information This material is not regulated by any mode of transportation.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Glycerin (CAS 56-81-5)

Other Flavoring Substances with OSHA PEL's

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

3-iodo-2-propynyl-butylcarbamate (CAS 55406-53-6)

Glycerin (CAS 56-81-5)
Propylene Glycol (CAS 57-55-6)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-05-2021

Version # 01

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

Safety Data Sheet (SDS)

The SDS is also available at www.nextteq.com.

1 Identification

Product identifier

Trade name: VeriFit Irritant Smoke Generators

Product number: P/N 50811000-310N & P/N 90095

CAS number: 7646-78-8

EC number: 231-588-9

Index number: 050-001-00-5

Product description

Irritant smoke generator, designed for Irritant Smoke Qualitative Fit Testing as specified by the U.S. Occupational Safety and Health Administration (OSHA).

Application of the substance / the mixture

Dangerous To Life: Read, understand and comply with all instructions, warnings, labels, and other literature accompanying this product before attempting to use or using this product. Use this product strictly in accordance with the manufacturer's instructions, specifications, and warnings and only with the manufacturer's specified parts, components, and accessories.

Class of Users: This product is only for sale to, only for use by, and only for storage by trained, qualified, technically competent, and professional commercial, industrial, military, or government users.

ASSISTANCE: IF THE USER IS CONFUSED ABOUT THE PROPER USE OF THE SMOKE TUBE / GENERATOR, ANY INSTRUCTIONS, WARNINGS, LABELS, OR THE MANUAL, THE USER SHOULD CONTACT NEXTTEQ LLC FOR ASSISTANCE PRIOR TO USING THE PRODUCT. NEXTTEQ'S TOLL FREE NUMBER IS: (877) 312-2333; LOCAL NUMBER IS (813) 249-5888.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Nextteq LLC

8406 Benjamin Rd, Ste J

Tampa, FL 33634

877-312-2333

813-249-5888

www.nextteq.com

Emergency telephone number: 877-312-2333 or 813-249-5888

2 Hazard(s) identification



Classification of the substance or mixture

Corrosion

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

Additional information:

Stannic chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds. The emitted smoke has a strong irritating odor.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

Label elements

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).



Hazard pictograms

GHS05

Signal word Danger

Hazard-determining components of labeling: stannic chloride

Hazard statements

Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statements

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

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor.

Store locked up.

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

Classification system: NFPA ratings (scale 0 - 4)



Health = 3

Fire = 0

Reactivity = 0



Health = 3

Fire = 0

Reactivity = 0

3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

7646-78-8 stannic chloride (<0.5 ml in each VeriFit Irritant Smoke Generator)

Identification number(s)

EC number: 231-588-9

Index number: 050-001-00-5

Additional information:

Stannic chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds.

The emitted smoke has a strong irritating odor.

4 First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: In case of unconsciousness, place patient securely on side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Most important symptoms and effects, both acute and delayed

Effects of Overexposure:

Hydrogen chloride gas is corrosive. Prolonged inhalation of gas concentrations moderately above the ACGIH:

TLV ceiling of 2 ppm can irritate nasal passages. Inhalation of higher concentrations (above 2 ppm) for short periods of time can cause choking and coughing, and produce severe irritation to the mucous membranes of the upper respiratory tract. The NIOSH-recommended IDLH level is 50 ppm. HCl can cause severe irritation and tissue burns. If deeply inhaled, pulmonary edema may occur.

The emitted tin compound is also an irritant to eyes, skin and mucous membranes, due to its acidity.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

Fire encompassing the tubes will emit toxic fumes of chlorides. Violently reacts with water to generate heat. Generates smoke with moisture in air. Mixing with alkali metal may result in an explosion.

Advice for firefighters

If there is a fire around the area where tubes are stored, move the tubes or cool the tubes by dousing with a large amount of water. Do not put water on tubes that have been crushed or broken.

Protective equipment: Wear SCBA if there is danger of leakage.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

7 Handling and storage

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

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

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** Keep receptacle tightly sealed.

· **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:

No further data; see section 7.

Control parameters**Components with occupational exposure limits:****7646-78-8 stannic chloride**

PEL Long-term value: 2 mg/m³ as Sn

REL Long-term value: 2 mg/m³ as Sn

TLV Long-term value: 2 mg/m³ as Sn

Additional information:

The lists that were valid during the creation were used as basis.

Hydrogen chloride gas is corrosive. Prolonged inhalation of gas concentrations moderately above the ACGIH:

TLV ceiling of 2 ppm can irritate nasal passages. Inhalation of higher concentrations (above 2 ppm) for short periods of time can cause choking and coughing, and produce severe irritation to the mucous membranes of the upper respiratory tract. The NIOSH-recommended IDLH level is 50 ppm. HCl can cause severe irritation and tissue burns. If deeply inhaled, pulmonary edema may occur.

The emitted tin compound is also an irritant to eyes, skin and mucous membranes, due to its acidity.

Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment:

If voluntary use of respiratory protection is used, select an air purifying respirator equipped, at a minimum, with high efficiency particulate air (HEPA) or P100 series filters for protection against hydrogen chloride fumes that are generated with the use of this product.

Safety Data Sheet (SDS)

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Protection of hands

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture. Select glove material based on penetration times, rates of diffusion and degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties**Information on basic physical and chemical properties****General Information**

Opaque plastic tube with small integrated bellows pump and internal sealed ampoule of liquid stannic chloride.

Appearance:

Form: Liquid

Color: Colorless

Odor: Characteristic

Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: -33.3 °C (-28 °F)

Boiling point/Boiling range: 114 °C (237 °F)

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure @ 20 °C (68 °F): 24 hPa (18 mm Hg)

Density @ 20 °C (68 °F): 2.23 g/cm³ (18.609 lbs/gal)

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Organic solvents: 0.0 %

Other information No further relevant information available.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability**Thermal decomposition / conditions to be avoided:**

SnCl₄ decomposes upon exposure to moist air or water. HCl is a stable compound. It does not undergo hazardous polymerization; however, HCl can catalyze polymerization of other compounds.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid Reacts with turpentine, alcohols, and amines causing a potential fire hazard.

Incompatible materials:

Incompatible materials include alkali compounds, amines, metal oxides, hydroxides, copper, brass, zinc, other metals, turpentine, and alcohols. Mixing with alkali metals may result in an explosion.

Hazardous decomposition products:

When heated to decomposition, the smoke tubes will emit chloride fume.

11 Toxicological information

Information on toxicological effects**Acute toxicity:****Primary irritant effect:**

on the skin: Strong caustic effect on skin and mucous membranes.

on the eye: Corrosive effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Harmful to fish

Additional ecological information:

General notes: Generally not hazardous for water

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Harmful to aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

13 Disposal considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation:

- i) Used items that no longer generate smoke do not need any special cleaning before disposal.
- ii) Used items should not be disposed of until they no longer generate smoke, or are neutralized using water and sodium carbonate (or equivalent alkaline substance).
- iii) Unused items should not be disposed of until the stannic chloride ampoule is broken and they are either allowed to fully react until they no longer smoke, or are neutralized using water and sodium carbonate (or equivalent alkaline substance). Consult local authorities to assure compliance with all local, state, and federal law and regulations, including but not limited to EPA regulations.

14 Transport information

UN-Number, DOT, ADR, IMDG, IATA	UN1827
UN proper shipping name, DOT	Stannic chloride, anhydrous
ADR	UN1827 Stannic chloride, anhydrous
IMDG, IATA	STANNIC CHLORIDE, ANHYDROUS
Transport hazard class(es)	
DOT	



Limited Quantity

Class	8 Corrosive substances.
Label	8
ADR	



Limited Quantity

Class	8 (C1) Corrosive substances
Label	8
IMDG, IATA	



Limited Quantity

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

Class	8 Corrosive substances.
Label	8
Packing group	
DOT, ADR, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Corrosive substances
Danger code (Kemler):	X80
EMS Number:	F-A,S-B
Segregation groups	Acids
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

Transport/Additional information:

DOT Ground Transportation – 49 CFR 173.4 small quantity exception for net inner packings with less than 1-liter of liquid stannic chloride. Each individual VeriFit Irritant Smoke Generator contains <0.5 ml liquid stannic chloride so this exception applies to net inner packings of up to 2000 individual VeriFit Irritant Smoke Generators.

IATA Air Transportation – IATA excepted quantity for net inner packings with less than 500 ml of liquid stannic chloride. Each individual VeriFit Irritant Smoke Generator contains <0.5 ml liquid stannic chloride so this exception applies to net inner packings of up to 1000 individual VeriFit Irritant Smoke Generators.

UN “Model Regulation”:

UN1827, Stannic chloride, anhydrous, 8, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

Substance is listed.

Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



Signal word Danger

Hazard-determining components of labeling:

stannic chloride

Hazard statements

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

Precautionary statements

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

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor.

Store locked up.

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

National regulations:

Substance is not listed.

State Right to Know

7646-78-8 stannic chloride

 Skin Corr. 1B, H314; Aquatic Chronic 3, H412 ≤ 2.5%

Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information 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.

Recommended restriction of use

Other Precautions: Avoid eye and skin contact with smoke. Do not directly breathe the smoke. Avoid the buildup of smoke.

Safety Data Sheet (SDS)

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Use in a well-ventilated area. Do not use under a hood or in a confined space. Do not blow smoke directly into anyone's unprotected face or eyes. Test only one person at a time. Do not blow smoke between test subjects. Immediately after using the smoke tube or being exposed to the smoke, scrub face, hands, and any area exposed to the smoke with soap and clean running water and always before eating, drinking, smoking, applying cosmetics, or inserting or removing contact lenses.

Do not use this product for respirator fit testing or a "Sensitivity Check" if any of the following conditions are present:

- a) The test subject has pre-existing respiratory, cardiovascular, bronchial, or sinus medical condition.
- b) The test subject is under a physician's care for respiratory, cardiovascular, bronchial, or sinus problems.
- c) The test subject is being treated for allergies, hypersensitivity, or asthma or has a pre-existing allergy, hypersensitivity, or other condition.
- d) The test subject is allergic to or hypersensitive to hydrogen chloride, stannic chloride, stannic oxide, stannic dioxide, tin tetrachloride, tin compounds, hydrochloric acid, or metal chloride.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Safety Data Sheet (SDS)

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Safety Data Sheet (SDS)

The SDS is also available at www.nextteq.com.

1 Identification

Product identifier

Trade name: VeriFit Irritant Smoke Generators

Product number: P/N 50811000-310N & P/N 90095

CAS number: 7646-78-8

EC number: 231-588-9

Index number: 050-001-00-5

Product description

Irritant smoke generator, designed for Irritant Smoke Qualitative Fit Testing as specified by the U.S. Occupational Safety and Health Administration (OSHA).

Application of the substance / the mixture

Dangerous To Life: Read, understand and comply with all instructions, warnings, labels, and other literature accompanying this product before attempting to use or using this product. Use this product strictly in accordance with the manufacturer's instructions, specifications, and warnings and only with the manufacturer's specified parts, components, and accessories.

Class of Users: This product is only for sale to, only for use by, and only for storage by trained, qualified, technically competent, and professional commercial, industrial, military, or government users.

ASSISTANCE: IF THE USER IS CONFUSED ABOUT THE PROPER USE OF THE SMOKE TUBE / GENERATOR, ANY INSTRUCTIONS, WARNINGS, LABELS, OR THE MANUAL, THE USER SHOULD CONTACT NEXTTEQ LLC FOR ASSISTANCE PRIOR TO USING THE PRODUCT. NEXTTEQ'S TOLL FREE NUMBER IS: (877) 312-2333; LOCAL NUMBER IS (813) 249-5888.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Nextteq LLC

8406 Benjamin Rd, Ste J

Tampa, FL 33634

877-312-2333

813-249-5888

www.nextteq.com

Emergency telephone number: 877-312-2333 or 813-249-5888

2 Hazard(s) identification



Classification of the substance or mixture

Corrosion

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

Additional information:

Stannic chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds. The emitted smoke has a strong irritating odor.

Safety Data Sheet (SDS)

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Label elements

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).



Hazard pictograms

GHS05

Signal word Danger

Hazard-determining components of labeling: stannic chloride

Hazard statements

Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statements

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

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor.

Store locked up.

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

Classification system: NFPA ratings (scale 0 - 4)



Health = 3

Fire = 0

Reactivity = 0



Health = 3

Fire = 0

Reactivity = 0

3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

7646-78-8 stannic chloride (<0.5 ml in each VeriFit Irritant Smoke Generator)

Identification number(s)

EC number: 231-588-9

Index number: 050-001-00-5

Additional information:

Stannic chloride reacts with ambient humidity to liberate a white smoke consisting of hydrogen chloride (HCl) and tin compounds.

The emitted smoke has a strong irritating odor.

4 First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: In case of unconsciousness, place patient securely on side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Most important symptoms and effects, both acute and delayed

Effects of Overexposure:

Hydrogen chloride gas is corrosive. Prolonged inhalation of gas concentrations moderately above the ACGIH:

TLV ceiling of 2 ppm can irritate nasal passages. Inhalation of higher concentrations (above 2 ppm) for short periods of time can cause choking and coughing, and produce severe irritation to the mucous membranes of the upper respiratory tract. The NIOSH-recommended IDLH level is 50 ppm. HCl can cause severe irritation and tissue burns. If deeply inhaled, pulmonary edema may occur.

The emitted tin compound is also an irritant to eyes, skin and mucous membranes, due to its acidity.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

Fire encompassing the tubes will emit toxic fumes of chlorides. Violently reacts with water to generate heat. Generates smoke with moisture in air. Mixing with alkali metal may result in an explosion.

Advice for firefighters

If there is a fire around the area where tubes are stored, move the tubes or cool the tubes by dousing with a large amount of water. Do not put water on tubes that have been crushed or broken.

Protective equipment: Wear SCBA if there is danger of leakage.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

7 Handling and storage

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles: No special requirements.

· Information about storage in one common storage facility: Not required.

· Further information about storage conditions: Keep receptacle tightly sealed.

· Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:

No further data; see section 7.

Control parameters

Components with occupational exposure limits:

7646-78-8 stannic chloride

PEL Long-term value: 2 mg/m³ as Sn

REL Long-term value: 2 mg/m³ as Sn

TLV Long-term value: 2 mg/m³ as Sn

Additional information:

The lists that were valid during the creation were used as basis.

Hydrogen chloride gas is corrosive. Prolonged inhalation of gas concentrations moderately above the ACGIH:

TLV ceiling of 2 ppm can irritate nasal passages. Inhalation of higher concentrations (above 2 ppm) for short periods of time can cause choking and coughing, and produce severe irritation to the mucous membranes of the upper respiratory tract. The NIOSH-recommended IDLH level is 50 ppm. HCl can cause severe irritation and tissue burns. If deeply inhaled, pulmonary edema may occur.

The emitted tin compound is also an irritant to eyes, skin and mucous membranes, due to its acidity.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment:

If voluntary use of respiratory protection is used, select an air purifying respirator equipped, at a minimum, with high efficiency particulate air (HEPA) or P100 series filters for protection against hydrogen chloride fumes that are generated with the use of this product.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

Protection of hands

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture. Select glove material based on penetration times, rates of diffusion and degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemical properties**General Information**

Opaque plastic tube with small integrated bellows pump and internal sealed ampoule of liquid stannic chloride.

Appearance:

Form: Liquid

Color: Colorless

Odor: Characteristic

Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: -33.3 °C (-28 °F)

Boiling point/Boiling range: 114 °C (237 °F)

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure @ 20 °C (68 °F): 24 hPa (18 mm Hg)

Density @ 20 °C (68 °F): 2.23 g/cm³ (18.609 lbs/gal)

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Organic solvents: 0.0 %

Other information No further relevant information available.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability**Thermal decomposition / conditions to be avoided:**

SnCl₄ decomposes upon exposure to moist air or water. HCl is a stable compound. It does not undergo hazardous polymerization; however, HCl can catalyze polymerization of other compounds.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid Reacts with turpentine, alcohols, and amines causing a potential fire hazard.

Incompatible materials:

Incompatible materials include alkali compounds, amines, metal oxides, hydroxides, copper, brass, zinc, other metals, turpentine, and alcohols. Mixing with alkali metals may result in an explosion.

Hazardous decomposition products:

When heated to decomposition, the smoke tubes will emit chloride fume.

11 Toxicological information

Information on toxicological effects**Acute toxicity:****Primary irritant effect:**

on the skin: Strong caustic effect on skin and mucous membranes.

on the eye: Corrosive effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Harmful to fish

Additional ecological information:

General notes: Generally not hazardous for water

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Harmful to aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

13 Disposal considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation:

- i) Used items that no longer generate smoke do not need any special cleaning before disposal.
- ii) Used items should not be disposed of until they no longer generate smoke, or are neutralized using water and sodium carbonate (or equivalent alkaline substance).
- iii) Unused items should not be disposed of until the stannic chloride ampoule is broken and they are either allowed to fully react until they no longer smoke, or are neutralized using water and sodium carbonate (or equivalent alkaline substance). Consult local authorities to assure compliance with all local, state, and federal law and regulations, including but not limited to EPA regulations.

14 Transport information

UN-Number, DOT, ADR, IMDG, IATA	UN1827
UN proper shipping name, DOT	Stannic chloride, anhydrous
ADR	UN1827 Stannic chloride, anhydrous
IMDG, IATA	STANNIC CHLORIDE, ANHYDROUS
Transport hazard class(es)	
DOT	



Limited Quantity

Class	8 Corrosive substances.
Label	8
ADR	



Limited Quantity

Class	8 (C1) Corrosive substances
Label	8
IMDG, IATA	



Limited Quantity

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

Class	8 Corrosive substances.
Label	8
Packing group	
DOT, ADR, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Corrosive substances
Danger code (Kemler):	X80
EMS Number:	F-A,S-B
Segregation groups	Acids
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

Transport/Additional information:

DOT Ground Transportation – 49 CFR 173.4 small quantity exception for net inner packings with less than 1-liter of liquid stannic chloride. Each individual VeriFit Irritant Smoke Generator contains <0.5 ml liquid stannic chloride so this exception applies to net inner packings of up to 2000 individual VeriFit Irritant Smoke Generators.

IATA Air Transportation – IATA excepted quantity for net inner packings with less than 500 ml of liquid stannic chloride. Each individual VeriFit Irritant Smoke Generator contains <0.5 ml liquid stannic chloride so this exception applies to net inner packings of up to 1000 individual VeriFit Irritant Smoke Generators.

UN “Model Regulation”:

UN1827, Stannic chloride, anhydrous, 8, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

Substance is listed.

Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



Signal word Danger

Hazard-determining components of labeling:

stannic chloride

Hazard statements

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

Precautionary statements

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

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor.

Store locked up.

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

National regulations:

Substance is not listed.

State Right to Know

7646-78-8 stannic chloride

 Skin Corr. 1B, H314; Aquatic Chronic 3, H412 ≤ 2.5%

Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information 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.

Recommended restriction of use

Other Precautions: Avoid eye and skin contact with smoke. Do not directly breathe the smoke. Avoid the buildup of smoke.

Safety Data Sheet (SDS)

PN 5081130-340N Rev I 5/17

Use in a well-ventilated area. Do not use under a hood or in a confined space. Do not blow smoke directly into anyone's unprotected face or eyes. Test only one person at a time. Do not blow smoke between test subjects. Immediately after using the smoke tube or being exposed to the smoke, scrub face, hands, and any area exposed to the smoke with soap and clean running water and always before eating, drinking, smoking, applying cosmetics, or inserting or removing contact lenses.

Do not use this product for respirator fit testing or a "Sensitivity Check" if any of the following conditions are present:

- a) The test subject has pre-existing respiratory, cardiovascular, bronchial, or sinus medical condition.
- b) The test subject is under a physician's care for respiratory, cardiovascular, bronchial, or sinus problems.
- c) The test subject is being treated for allergies, hypersensitivity, or asthma or has a pre-existing allergy, hypersensitivity, or other condition.
- d) The test subject is allergic to or hypersensitive to hydrogen chloride, stannic chloride, stannic oxide, stannic dioxide, tin tetrachloride, tin compounds, hydrochloric acid, or metal chloride.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3



Safety Data Sheet California CARB Compliant

1 - Identification

<p>Product Name: WD-40 Multi-Use Product Aerosol</p> <p>Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p>Restrictions on Use: None identified</p> <p>SDS Date Of Preparation: March 5, 2019</p>	<p>Manufacturer: WD-40 Company</p> <p>Address: 9715 Businesspark Avenue San Diego, California, USA 92131</p> <p>Telephone:</p> <p>Emergency: 1-888-324-7596</p> <p>Information: 1-888-324-7596</p> <p>Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)</p>
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2 – Hazards Identification

Hazcom 2012/GHS Classification:

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:



DANGER!

Extremely Flammable Aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Prevention

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

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

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

Avoid breathing vapors or mists.

Use only outdoors or in a well-ventilated area.

Response

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Storage

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

Disposal

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

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
LVP Aliphatic Hydrocarbon	64742-47-8	45-50%	Aspiration Toxicity Category 1
Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	<35%	Not Hazardous
Aliphatic Hydrocarbon	64742-47-8	<25%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant Gas Under Pressure, Compressed Gas

Note: The specific chemical identity and exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

Signs and Symptoms of Exposure: Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage. May cause eye and respiratory irritation. Inhalation of mists or vapors may cause drowsiness, dizziness and other nervous system effects. Skin contact may cause drying of the skin.

Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
LVP Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m ³ TWA (Inhalable) ACGIH TLV (as Mineral oil) 5 mg/m ³ TWA OSHA PEL (as Oil mist, mineral)
Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA OSHA PEL

The Following Controls are Recommended for Normal Consumer Use of this Product

Appropriate Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Light amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	138°F (59°C) Tag Closed Cup (liquid)	Autoignition Temperature:	Not established

Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	24.1% MIR=0.43gO3/gVOC	Pour Point:	-63°C (-81.4°F) ASTM D-97

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions

Chemical Stability: Stable

Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.

Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.

Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

Chronic Effects: None expected.

Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:

Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms

Persistence and Degradability: Components are readily biodegradable.

Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.

Mobility in Soil: No data available

Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

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

Section 302 Extremely Hazardous Substances (TPQ): None

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

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

16 – Other Information

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: March 5, 2019

Supersedes: July 19, 2018

Revision Summary: Section 9 update VOC data

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

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Regulatory Affairs Dept.

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