Product Name	Manufacturer	Section
Dark Cutting Oil	Black Swan Mfg. Co.	2
Dark Cutting Oil	Hercules / HCC Holdings, Inc. an Oatey Affiliate	2
Dark Cutting Oil	Mainline / Black Swan Mfg Co.	2
Dark Thread Cutting Oil	Ridge Tool Company	2
Disinfectant & Cleaner (RMR-141 RTU)	RMR Solutions, LLC	2
Door & Window Gun / Straw Foam	TVM Building Products	2
Dowsil HVAC/R Sealant Clear	The Dow Chemical Comapany	2
Duck Butter	Hercules / HCC Holdings, Inc. an Oatey Affiliate	2
DX Cartridge	Hilti, Inc.	2
Fibered Black Roofing	Henry	2
Fiberglass Insulation w/ Pure Fiber	Owens Corning	2
Fire Barrier - CP-25WB+	3M Company	2
Fire Barrier - Moldable Putty & Pads	3M Company	2
Fire Barrier - Sealant IC 15 WB+	3M Company	2
Fire Fighter GL38	Noble Company	2
Fire Fighter GL48	Noble Company	2
Fire Fighter PG38	Noble Company	2
Flame Safe FS900+ Sealant	The RectorSeal Corporation	2
Flux Rite 90 Paste	LA-CO Industries, Inc.	2
Foam Sealant Type FST Kit	American Poly Water Coporation	2
Foamular Extruded Polystyrene Insulation	Owens Corning Foam Insulation, LLC	2

BLACK SWAN MFG. CO.

GHS SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Manufacturer:

Black Swan Mfg. Co.
4540 W. Thomas St.
Chicago, IL 60651-3318
Tel.: 800-252-5796
Fax: 773-227-3705
Web Site : www.blackswanmfg.com
E-mail : info@blackswanmfg.com

For any Transportation or Medical Chemical Emergencies call:

INFOTRAC

(800) 535-5053 **OR** (352) 323-3500

24 hours per day - 7 days a week

Product Name: Dark Cutting Oil

Recommended Use: To lubricate and reduce heat generation in the process of threading metal pipes.

SECTION 2 – HAZARD(S) IDENTIFICATION

Labels

Irritant

Signal Word

Warning

HMIS

NFPA

GHS Classification

Health

Acute Toxicity: Cat. 4
Skin Irritation: Cat. 3
Eye Irritation: Cat. 2 B
Skin Sensitization: NO

Environmental

Acute Aquatic Toxicity: Not Established
Chronic Aquatic Toxicity: Not Established

Physical

None

Hazardous Statements

H303: May be harmful if swallowed
H316: Causes mild skin irritation
H320: Causes eye irritation

Precautionary Statements

P102: Keep out of reach of children
P261: Avoid breathing dust/fume/gas/mist/vapors/spray
P262: Do not get in eyes, on skin, or on clothing
P264: Wash thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemicals	CAS#	EINECS#	REACH Pre-registration Number	Approx %
SEVERELY TREATED HEAVY NAPHTHENIC PETROLEUM OIL	64742-52-5	N/A	N/A	40-80%
DISTILLATE PETROLEUM SOLVENT REFINED HEAVY PARAFFINIC OIL	64741-88-4	N/A	N/A	5-10%
DARK SULFUR BLEND	PROPRIETARY	N/A	N/A	5-30%
CHLORINATED ALKANES CHAIN LENGTH 14-17	61788-76-9	N/A	N/A	1-5%

*Unlisted ingredients are not classified as hazardous according to OSHA 1910.1200.

SECTION 4 – FIRST-AID MEASURES

Inhalation: Fresh air should alleviate any respiratory discomfort. If breathing difficulties develop or persist, get medical attention.
Skin: Wash exposed area with mild soap and water. Get medical attention if irritation develops or persists.
Eyes: Flush eyes with plenty of water for at least 15 to 20 minutes. Get medical attention if irritation persists.
Ingestion: DO NOT INDUCE VOMITING. Get immediate medical help.

SECTION 5 – FIRE-FIGHTING MEASURES

Fire Hazard: Directly spraying extinguishing media onto hot burning products may cause frothing and spreading of fire.
Combustion Products: None.
Extinguishing Media: Foam, Carbon Dioxide, Sand or Sodium Bicarbonate.
Unsuitable Extinguishing Media: None known.
Protective Equipment: Wear a self-contained breathing apparatus & protective clothing.
Special Fire Fighting Procedures: If near fire, use cold water to cool container and prevent rupture.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Minimize skin contact.
Protective Equipment: None.
Emergency Procedures: None.
Environmental Precautions: Keep product away from sewers, watercourse or extensive land areas.
Methods for Cleaning Up: Contain spill and transfer to suitable containers or soak up in absorbent medium. Finally, flush areas with cold water. If spill enters sewer, notify authorities.

SECTION 7 – HANDLING AND STORAGE

Handling	Storage
Keep out of reach of children. Keep container closed when not in use.	Protect from freezing temperatures. Avoid heating above 120°F for prolonged periods of time. **Incompatible Materials:** Strong oxidizing agents.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous Chemicals	Exposure Limits ACGIH-TLV	ACGIH-STEL	OSHA-PEL
SEVERELY TREATED HEAVY NAPHTHENIC PETROLEUM OIL	5mg/m^3	N/A	5 mg/m^3
DISTILLATE PETROLEUM SOLVENT REFINED HEAVY PARAFFINIC OIL	5mg/m^3	N/A	5 mg/m^3

Engineering Controls: A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed. Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry cleaned.
Ventilation: Local exhaust adequate.
Personal Protective Equipment – Respiratory: None. **Skin:** Chemical resistant gloves. Impervious apron. **Eyes:** Splash goggles/Face shield.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Dark Amber	**Flash Point**:	350°F	**Vapor Pressure**:	Not Established
Odor:	Bland	**Specific Gravity**:	<1	**Flammability**:	Not Established
pH:	Not Established	**Solubility (H2O):**	Insoluble	**Flammability Limits**:	LEL – Not Established
Melting Point:	Not Established	**Evaporation Rate**:	Not Established		UEL – Not Established
Freezing Point:	Not Established	**Vapor Density**:	>1		
Boiling Point:	Not Established	**VOC**:	0 g/l		

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable.
Hazardous polymerization: Will not occur.
Conditions to avoid: None.
Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products: Thermal-carbon monoxide and/or carbon dioxide when after content has evaporated and residue is exposed to excessive heat.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Chemicals	Toxicity LD_{50}	LC_{50}
SEVERELY TREATED HEAVY NAPHTHENIC PETROLEUM OIL	Oral: >5000 mg/kg (rat) Dermal: >2000 mg/kg (rabbit)	2180 mg/m^3 4 hours (rat)

Likely Routes of Exposure: Skin Contact and Eye Contact.
Symptoms and Effect – Inhalation: None. **Skin Contact:** May cause skin irritation and inflammation. Possible eye irritant. **Eye Contact:** May cause irritation. **Ingestion:** May result in nausea or stomach discomfort. **Long-Term Effect:** Skin irritation from long-term or repeated skin exposure may cause development of dermatitis.
Pre-Existing Conditions: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: None known.
Persistance & Degradability: None known.
Bioaccumulative Potential: None known.
Mobility in soil: In normal use, emission of Volatile Organic Compounds (VOC's) to the air takes place, typically at a rate of 0 g/l.

SECTION 13 – DISPOSAL CONSIDERATION

Dispose of product or container in accordance with federal, state or local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

D.O.T. (U.S.): Not Regulated.

SECTION 15 – REGULATORY INFORMATION

Precautionary Label Information: None.
Risk Phrases: None.
Safety Phrases: S2-Keep out of reach of children.

SECTION 16 – OTHER INFORMATION

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Black Swan Mfg. Co. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on the sheets. **DATE: 01/01/2023**

Hercules Dark Cutting Oil

HCC Holdings, Inc. an Oatey Affiliate

Version No: **1.1**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **02/15/2022**
Print Date: **02/15/2022**
S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Hercules Dark Cutting Oil
Synonyms	Not Available
Other means of identification	40210, 40215, 20220, 40225, 40240

Recommended use of the chemical and restrictions on use

Relevant identified uses	Thread Cutting Oil

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**HCC Holdings, Inc. an Oatey Affiliate**
Address	4700 West 160th Street Cleveland, OH 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	Not Available
Email	info@oatey.com

Emergency phone number

Association / Organisation	**Chemtrec**
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	Emergency First Aid: 1-877-740-5015

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Not Applicable

Label elements

Hazard pictogram(s)	Not Applicable
Signal word	**Not Applicable**

Page 1 continued...

Hazard statement(s)

Not Applicable

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
		Petroleum Hydrocarbon Mixture

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: • Wash out immediately with water. • If irritation continues, seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: • Flush skin and hair with running water (and soap if available). • Seek medical attention in event of irritation.
Inhalation	• If fumes, aerosols or combustion products are inhaled remove from contaminated area. • Other measures are usually unnecessary.
Ingestion	Gently wipe or rinse the inside of the mouth with water. In general no treatment is necessary unless large quantities are swallowed, however obtain medical advice. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures

Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Continued...

Fire Incompatibility	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases, oxides of sulfur and phosphorous (smoke). Carbon monoxide.

Special protective equipment and precautions for fire-fighters

Fire Fighting	‣ Alert Fire Department and tell them location and nature of hazard. ‣ Wear full body protective clothing with breathing apparatus. ‣ Prevent, by any means available, spillage from entering drains or water course. ‣ Use water delivered as a fine spray to control fire and cool adjacent area. ‣ Avoid spraying water onto liquid pools. ‣ **DO NOT** approach containers suspected to be hot. ‣ Cool fire exposed containers with water spray from a protected location. ‣ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	‣ Slight fire hazard when exposed to heat or flame. ‣ Heating may cause expansion or decomposition leading to violent rupture of containers. ‣ On combustion, may emit irritating/ toxic fumes. ‣ May emit acrid smoke. ‣ Mists containing combustible materials may be explosive.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	‣ Remove all ignition sources. ‣ Clean up all spills immediately. ‣ Avoid breathing vapours and contact with skin and eyes. ‣ Control personal contact with the substance, by using protective equipment. ‣ Contain and absorb spill with sand, earth, inert material or vermiculite. ‣ Wipe up. ‣ Place in a suitable, labelled container for waste disposal.
Major Spills	‣ Clear area of personnel and move upwind. ‣ Alert Fire Department and tell them location and nature of hazard. ‣ Wear breathing apparatus plus protective gloves. ‣ Prevent, by any means available, spillage from entering drains or water course. ‣ No smoking, naked lights or ignition sources. ‣ Increase ventilation. ‣ Stop leak if safe to do so. ‣ Contain spill with sand, earth or vermiculite. ‣ Collect recoverable product into labelled containers for recycling. ‣ Absorb remaining product with sand, earth or vermiculite. ‣ Collect solid residues and seal in labelled drums for disposal. ‣ Wash area and prevent runoff into drains. ‣ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	‣ Avoid all personal contact, including inhalation. ‣ Wear protective clothing when risk of exposure occurs. ‣ Use in a well-ventilated area. ‣ Prevent concentration in hollows and sumps. ‣ **DO NOT** enter confined spaces until atmosphere has been checked. ‣ Avoid smoking, naked lights or ignition sources. ‣ Avoid contact with incompatible materials. ‣ When handling, **DO NOT** eat, drink or smoke. ‣ Keep containers securely sealed when not in use.

Continued...

Other information	‣ Avoid physical damage to containers. ‣ Always wash hands with soap and water after handling. ‣ Work clothes should be laundered separately. ‣ Use good occupational work practice. ‣ Observe manufacturer's storage and handling recommendations contained within this SDS. ‣ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. ‣ Store in original containers. ‣ Keep containers securely sealed. ‣ No smoking, naked lights or ignition sources. ‣ Store in a cool, dry, well-ventilated area. ‣ Store away from incompatible materials and foodstuff containers. ‣ Protect containers against physical damage and check regularly for leaks. ‣ Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	‣ Metal can or drum ‣ Packaging as recommended by manufacturer. ‣ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1		Oil mist, mineral	5 mg/m3	Not Available	Not Available	Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents

Continued...

2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood - local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Personal protection

Eye and face protection

- Safety glasses with side shields
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Skin protection

See Hand protection below

Hands/feet protection

Wear general protective gloves, eg. light weight rubber gloves.

Body protection

See Other protection below

Other protection

No special equipment needed when handling small quantities.
OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Dark liquid

Physical state	Liquid	**Relative density (Water = 1)**	0.92
Odour	Slight hydrocarbon	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity**	180 SUS at 100 °F
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	171	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Available

Continued...

Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Partly miscible	**pH as a solution (Not Available%)**	Not Available
Vapour density (Air = 1)	>1	**VOC g/L**	Not Available

SECTION 10 Stability and reactivity

Reactivity	Not reactive under normal conditions of use.
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Avoid reaction with oxidizing agents.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	strong oxidizing agents.
Hazardous decomposition products	Hazardous decomposition products are not expected to form during normal storage.

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	The material has **NOT** been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Eye	Although the liquid is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health; nevertheless exposure by all routes should be minimised as a matter of course.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✗	**Reproductivity**	✗
Serious Eye Damage/Irritation	✗	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✗	**STOT - Repeated Exposure**	✗
Mutagenicity	✗	**Aspiration Hazard**	✗

Legend: ✗ – *Data either not available or does not fill the criteria for classification*
✓ – *Data available to make classification*

SECTION 12 Ecological information

Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Hercules Dark Cutting Oil	Not Available	Not Available	Not Available	Not Available	Not Available

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Continued...

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Transport in bulk in accordance with the ICG Code

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

Petroleum Hydrocarbon Mixture is found on the following regulatory lists

Continued...

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List
US ACGIH Threshold Limit Values (TLV)
US ACGIH Threshold Limit Values (TLV) - Carcinogens
US DOE Temporary Emergency Exposure Limits (TEELs)
US National Toxicology Program (NTP) 15th Report Part A Known to be Human Carcinogens
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

State Regulations

US. California Proposition 65

None Reported

National Inventory Status

National Inventory	Status
USA - TSCA	Yes
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Revision Date	02/15/2022
Initial Date	09/18/2021

Continued...

Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

GHS SAFETY DATA SHEET

Dark Cutting Oil

SECTION 1 - IDENTIFICATION

Supplier:

Hajoca Corporation
2001 Joshua Road
Lafayette Hill, PA 19444
Phone: 225-295-4212
Web Site : www.mainlinlinecollection.com
E-mail : mlcustomerservice@hajoca.com

Manufacturer:

Black Swan Mfg. Co. 4540 W. Thomas St. Chicago, IL 60651-3318
Tel.: 800-252-5796
Fax: 773-227-3705
Web Site : www.blackswanmfg.com
E-mail : info@blackswanmfg.com

For any Transportation or Medical Chemical Emergencies call:

INFOTRAC

(800) 535-5053 **OR** (352) 323-3500

24 hours per day - 7 days a week

Product Name: Dark Cutting Oil

Recommended Use: To lubricate and reduce heat generation in the process of threading metal pipes.

SECTION 2 – HAZARD(S) IDENTIFICATION

Labels

Irritant

Signal Word

Warning

HMIS

NFPA

GHS Classification

Health

Acute Toxicity: Cat. 4
Skin Irritation: Cat. 3
Eye Irritation: Cat. 2 B
Skin Sensitization: NO

Environmental

Acute Aquatic Toxicity: Not Established
Chronic Aquatic Toxicity: Not Established

Physical

None

Hazardous Statements

H303: May be harmful if swallowed
H316: Causes mild skin irritation
H320: Causes eye irritation

Precautionary Statements

P102: Keep out of reach of children
P261: Avoid breathing dust/fume/gas/mist/vapors/spray
P262: Do not get in eyes, on skin, or on clothing
P264: Wash thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemicals	CAS#	EINECS#	REACH Pre-registration Number	Approx %
SEVERELY TREATED HEAVY NAPHTHENIC PETROLEUM OIL	64742-52-5	N/A	N/A	40-80%
DISTILLATE PETROLEUM SOLVENT REFINED HEAVY PARAFFINIC OIL	64741-88-4	N/A	N/A	5-10%
DARK SULFUR BLEND	PROPRIETARY	N/A	N/A	5-30%
CHLORINATED ALKANES CHAIN LENGTH 14-17	61788-76-9	N/A	N/A	1-5%

*Unlisted ingredients are not classified as hazardous according to OSHA 1910.1200.

SECTION 4 – FIRST-AID MEASURES

Inhalation: Fresh air should alleviate any respiratory discomfort. If breathing difficulties develop or persist, get medical attention.
Skin: Wash exposed area with mild soap and water. Get medical attention if irritation develops or persists.
Eyes: Flush eyes with plenty of water for at least 15 to 20 minutes. Get medical attention if irritation persists.
Ingestion: DO NOT INDUCE VOMITING. Get immediate medical help.

SECTION 5 – FIRE-FIGHTING MEASURES

Fire Hazard: Directly spraying extinguishing media onto hot burning products may cause frothing and spreading of fire.
Combustion Products: None.
Extinguishing Media: Foam, Carbon Dioxide, Sand or Sodium Bicarbonate.
Unsuitable Extinguishing Media: None known.
Protective Equipment: Wear a self-contained breathing apparatus & protective clothing.
Special Fire Fighting Procedures: If near fire, use cold water to cool container and prevent rupture.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Minimize skin contact.
Protective Equipment: None.
Emergency Procedures: None.
Environmental Precautions: Keep product away from sewers, watercourse or extensive land areas.
Methods for Cleaning Up: Contain spill and transfer to suitable containers or soak up in absorbent medium. Finally, flush areas with cold water. If spill enters sewer, notify authorities.

SECTION 7 – HANDLING AND STORAGE

Handling	Storage
Keep out of reach of children. Keep container closed when not in use.	Protect from freezing temperatures. Avoid heating above 120°F for prolonged periods of time. **Incompatible Materials:** Strong oxidizing agents.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous Chemicals	Exposure Limits ACGIH-TLV	ACGIH-STEL	OSHA-PEL
SEVERELY TREATED HEAVY NAPHTHENIC PETROLEUM OIL	5mg/m^3	N/A	5 mg/m^3
DISTILLATE PETROLEUM SOLVENT REFINED HEAVY PARAFFINIC OIL	5mg/m^3	N/A	5 mg/m^3

Engineering Controls: A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed. Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry cleaned.
Ventilation: Local exhaust adequate.
Personal Protective Equipment – Respiratory: None. **Skin:** Chemical resistant gloves. Impervious apron. **Eyes:** Splash goggles/Face shield.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Dark Amber	**Flash Point**:	350°F	**Vapor Pressure**:	Not Established
Odor:	Bland	**Specific Gravity**:	<1	**Flammability**:	Not Established
pH:	Not Established	**Solubility (H2O):**	Insoluble	**Flammability Limits**:	LEL – Not Established
Melting Point:	Not Established	**Evaporation Rate**:	Not Established		UEL – Not Established
Freezing Point:	Not Established	**Vapor Density**:	>1		
Boiling Point:	Not Established	**VOC**:	0 g/l		

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable.
Hazardous polymerization: Will not occur.
Conditions to avoid: None.
Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products: Thermal-carbon monoxide and/or carbon dioxide when after content has evaporated and residue is exposed to excessive heat.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Chemicals	Toxicity LD_{50}	LC_{50}
SEVERELY TREATED HEAVY NAPHTHENIC PETROLEUM OIL	Oral: >5000 mg/kg (rat) Dermal: >2000 mg/kg (rabbit)	2180 mg/m^3 4 hours (rat)

Likely Routes of Exposure: Skin Contact and Eye Contact.
Symptoms and Effect – Inhalation: None. **Skin Contact:** May cause skin irritation and inflammation. Possible eye irritant. **Eye Contact:** May cause irritation. **Ingestion:** May result in nausea or stomach discomfort. **Long-Term Effect:** Skin irritation from long-term or repeated skin exposure may cause development of dermatitis.
Pre-Existing Conditions: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: None known.
Persistance & Degradability: None known.
Bioaccumulative Potential: None known.
Mobility in soil: In normal use, emission of Volatile Organic Compounds (VOC's) to the air takes place, typically at a rate of 0 g/l.

SECTION 13 – DISPOSAL CONSIDERATION

Dispose of product or container in accordance with federal, state or local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

D.O.T. (U.S.): Not Regulated.

SECTION 15 – REGULATORY INFORMATION

Precautionary Label Information: None.
Risk Phrases: None.
Safety Phrases: **S2**-Keep out of reach of children.

SECTION 16 – OTHER INFORMATION

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Black Swan Mfg. Co. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on the sheets. **DATE: 01/01/2023**

RIDGID

SAFETY DATA SHEET

Section 1 – Product & Company Identification

Product Name:	RIDGID Dark Thread Cutting Oil (United States)
Product Catalog No.:	11471, 11491, 41590, 41600, 41610, 70830
Recommended Use:	Thread Cutting
Restrictions on Use:	Industrial use only

Company Information:

North America	Australia
Ridge Tool Company 400 Clark Street Elyria, Ohio 44035-6001 1-800-519-3456 (8:00 am – 5:00 pm EST, M-F) Emergency Telephone call 9-1-1 or local emergency number www.RIDGID.com	Ridge Tool Australia 127 Metrolink Circuit Campbellfield, VIC 3061 1-800-743-443 (8:30 am – 5:00 pm AEST, M-F) Emergency Telephone call 000 or local emergency number www.RIDGID.com.au

Operating Standard:	6-103
Revision:	J
EC Number	45297
Issue Date:	October 19, 2020
Last Revision Date	May 2, 2018

- Français – 12
- Castellano – pág. 23

RIDGID

Product Name : RIDGID Dark Thread Cutting Oil (United States)

Section 2 – Hazards Identification

Hazard Classification

This product is classified as not hazardous per US OSHA 29CFR 1910.1200 (HazCom 2012)

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements Not applicable

Other hazards which do not result in GHS classification: None.

Section 3 – Composition / Information On Ingredients

General information: This product does not contain silicone or chlorinated additives.

Hazardous Component(s):

Chemical name	CAS-No.	Concentration
Mineral oil	Confidential	20 - <50%
Paraffin oils	Confidential	20 - <50%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

Section 4 – First Aid Measures

Ingestion: Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

Inhalation: Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.

Skin Contact: Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact:	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Get medical attention if symptoms occur.

Section 5 – Fire Fighting Measures

General Fire Hazards:	No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO_2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.
Methods and material for containment and cleaning up:	Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.
Environmental Precautions:	Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

Section 7 – Handling And Storage

Precautions for safe handling:	End-users should follow industry best practices for handling and using this product. Guidance may be found using the current version of ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.
Conditions for safe storage, including any incompatibilities:	Shelf Life: 720 Days Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

RIDGID

Product Name : RIDGID Dark Thread Cutting Oil (United States)

Section 8 – Exposure Controls / Personal Protection

Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (01 2017)
Mineral oil - Mist.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Paraffin oils - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
Paraffin oils - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Paraffin oils - Mist.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)

Protective Measures: Use personal protective equipment as required.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

Eye Protection: Wear safety glasses with side shields (or goggles).

Skin and Body Protection: Wear protective clothing appropriate for the risk of exposure. Be aware of other hazards such as rotating parts. Contact health and safety professional or manufacturer for specific information. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Section 9 – Physical And Chemical Properties

Appearance	
Physical state:	liquid
Form:	No data available.
Color:	Black
Odor:	Mild petroleum/solvent
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	196.11 °C (385.00 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.878
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	42.5 mm2/s (40 °C, Measured)
Other information	
VOC:	1.99 g/l (ASTM E 1868-10) 1.3 % (Method 24)

Section 10 – Stability And Reactivity

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Section 11 – Toxicological Information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Prolonged skin contact may cause redness and irritation.
Eye contact:	Eye contact is possible and should be avoided.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	ATEmix (): 2000 - 5000 mg/kg
Dermal Product:	ATEmix (): 2000 - 5000 mg/kg

Inhalation
Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

Section 12 – Ecological Information

General information: This product has not been evaluated for ecological toxicity or other environmental effects.

Section 13 – Disposal Consideration

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 – Transportation Information

DOT
Not regulated.

IMDG
Not regulated.

IATA
Not regulated.

Section 15 – Regulatory Information

US Federal Regulations

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Not classified as hazardous under GHS

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
No ingredient requiring a warning under CA Prop 65.

Section 16 – Other Information

Prepared by:..... Ridge Tool Company

OPSTD 6-103

Revision ..... J

EC Number 45297

Issue Date: ..... October 19, 2020

Last Revision Date: ..... May 2, 2018

RIDGE TOOL BELIEVES THE STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE RELIABLE BUT THEY ARE GIVEN WITHOUT WARRANTY OR GUARANTEE OF ANY KIND, EXPRESSED OR IMPLIED, AND WE ASSUME NO RESPONSIBILITY FOR ANY LOSS, DAMAGE OR EXPENSE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THEIR USE.

RIDGID

FICHE SANTÉ/SÉCURITÉ

1 – Identification du produit et du fournisseur

Produit:	RIDGID Dark Thread Cutting Oil (Etats-Unis)
Réf. catalogue:	11471, 11491, 41590, 41600, 41610, 70830
Emploi recommandé:	Filetage mécanique
Restrictions d'utilisation:	Usage industriel seulement

Fournisseur:

North America
Ridge Tool Company
400 Clark Street
Elyria, Ohio 44035-6001
1-800-519-3456
(Etats-Unis) (du lundi au vendredi de 8h à 17h EST)
Téléphone d'urgence:
composer le 9-1-1 ou appeler les services d'urgences appropriés
www.RIDGID.com

Norme De Fonctionnement:	6-103
Révision:	J
EC:	45297
Date de publication:	19 octobre 2020
Dernière revision:	le 2 mai 2018

RIDGID

Produit: RIDGID Dark Thread Cutting Oil (Etats-Unis)

2 – Identification des risques

Classe de Danger

Non classé comme dangereux selon le SGH

Éléments d'Étiquetage

Symbole de Danger: Aucun symbole

Mention d'Avertissement: Aucun mot indicateur.

Mention de Danger: Non applicable

Conseils de Prudence Non applicable

Autres dangers ne donnant pas lieu à classement selon le SGH: Aucun(e).

3 – Composition du produit et renseignements sur ses ingrédients

Informations générales: Ce produit ne contient pas de silicone ou d'additifs chlorés.

Composant(s) dangereux:

Désignation chimique	N° CAS	Concentration
Mineral oil	Confidentiel	20 - <50%
Paraffin oils	Confidentiel	20 - <50%

Les identités chimiques spécifiques et-ou les pourcentages exacts ont été refusées comme les secrets commerciaux.

4 – Premiers soins

Ingestion: Rincer soigneusement la bouche. Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise. NE PAS faire vomir.

Inhalation: Transporter à l'air frais. Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise.

Contact avec la Peau:	Enlever les vêtements et les chaussures contaminés. Laver les zones de contact à l'eau et au savon. En cas d'irritation cutanée: consulter un médecin.
Contact oculaire:	Rincer avec soin à l'eau. En cas d'irritation, consulter un médecin. Continuer à rincer pendant au moins 15 minutes.

Symptômes/effets les plus importants, aigus et différés

Symptômes:	Aucune information disponible.

Indication d'un besoin médical immédiat et traitement spécial requis

Traitement:	Consulter un médecin en cas de symptômes.

5 – Lutte contre les incendies

Dangers d'Incendie Généraux: Aucun risque exceptionnel d'incendie et d'explosion.

Moyens d'extinction appropriés (et inappropriés)

Moyens d'extinction appropriés:	Eau pulvérisée, brouillard, CO2, agent chimique sec ou mousse standard. Choisir le moyen d'extinction de l'incendie en tenant compte d'autres produits chimiques éventuels.
Moyens d'extinction inappropriés:	Ne pas lutter contre l'incendie au jet d'eau pour ne pas propager les flammes.
Dangers spécifiques dus au produit chimique:	La chaleur peut provoquer l'explosion des récipients. En cas d'incendie, des gaz dangereux pour la santé peuvent se former.

Équipement de protection spécial et précautions pour les pompiers

Procédures spéciales de lutte contre l'incendie:	Aucune information disponible.
Équipement de protection spécial pour le personnel préposé à la lutte contre le feu:	Les pompiers doivent porter un équipement de protection standard, notamment vêtement ignifuge, casque à masque facial, gants, bottes en caoutchouc et, dans les espaces clos, un appareil respiratoire autonome.

6 – Lutte contre les déversements accidentels

Précautions individuelles, équipement de protection et procédures d'urgence:	Voir l'équipement de protection individuelle à la Section 8. Ne pas toucher les récipients endommagés ou le produit déversé à moins de porter les vêtements de protection appropriés. Maintenir à distance le personnel non autorisé. Assurer une ventilation adéquate.
Méthodes et matériel de confinement et de nettoyage:	Absorber le produit avec du sable ou un autre absorbant inerte. Arrêter le débit de matière, si ceci est sans risque.
Précautions pour la Protection de l'Environnement:	Éviter le rejet dans l'environnement. Ne pas contaminer les sources d'eau ou les égouts. Endiguer la fuite ou le déversement si cela peut être fait sans danger.

7 – Manipulation et stockage

Précautions à prendre pour une manipulation sans danger:	Les utilisateurs finaux devraient respecter les meilleures pratiques de l'industrie lors de la manipulation et l'utilisation de ce produit. Les conseils peuvent être trouvés en utilisant la version actuelle de ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids Se conformer aux bonnes pratiques d'hygiène industrielle. Porter un équipement de protection personnelle approprié. N'exposez pas à la chaleur intense comme le produit peut développer et pressuriser le récipient.
Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités:	Durée de conservation: 720 jours Conserver dans le récipient d'origine hermétiquement fermé. Éviter tout contact avec des agents comburants. Conserver à l'écart des matières incompatibles.

RIDGID

Produit: RIDGID Dark Thread Cutting Oil (Etats-Unis)

8 – Risques d'exposition et protection individuelle

Limites d'Exposition

Désignation chimique	Type	Valeurs Limites d'Exposition	Source
Mineral oil - Brouillard	PEL	5 mg/m3	Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (01 2017)
Mineral oil - Brouillard	TWA	5 mg/m3	Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (1989)
Paraffin oils - Fraction inhalable.	TWA	5 mg/m3	États-Unis. ACGIH, valeurs limites d'exposition, dans leur version modifiée (03 2014)
Paraffin oils - Brouillard	PEL	5 mg/m3	Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (02 2006)
Paraffin oils - Brouillard	TWA	5 mg/m3	Les Etats-Unis. La Table d'OSHA z-1 les Limites pour les Polluants Aériens (29 CFR 1910.1000) (1989)

Mesures de protection: Utiliser l'équipement de protection individuel requis.

Protection respiratoire: En cas de ventilation insuffisante, porter un appareil respiratoire approprié. Demander l'avis du superviseur sur les normes de protection respiratoire de la société.

Protection des Yeux: Porter des lunettes de sécurité à écrans latéraux ou des lunettes étanches.

Protection de la peau et du corps: Porter des vêtements de protection appropriés au risque d'exposition. Soyez conscient des autres dangers tels que les pièces en rotation. Contacter un professionnel de la santé et de la sécurité ou un fabricant pour obtenir des informations spécifiques. Porter des gants, des chaussures et des vêtements de protection résistant aux produits chimiques, et correspondant au risque d'exposition. Contacter un professionnel de l'hygiène et sécurité ou le fabricant pour tout détail.

Mesures d'hygiène: Toujours adopter de bonnes pratiques d'hygiène personnelle, telles que lavage après manipulation de la substance et avant de manger, de boire ou de fumer. Laver régulièrement la tenue de travail pour éliminer les contaminants. Mettre au rebut les chaussures qui ne peuvent pas être lavées.

9 – Caractéristiques physiques et chimiques

Aspect	
État:	liquide
Forme:	Aucune information disponible.
Couleur:	Noir
Odeur:	Légère, Pétrole/solvant
Seuil de perception de l'odeur:	Aucune information disponible.
pH:	Aucune information disponible.
Point de fusion/point de congélation:	Aucune information disponible.
Température d'ébullition initiale et intervalle d'ébullition:	Aucune information disponible.
Point d'éclair:	196.11 °C (385.00 °F)
Taux d'évaporation:	Aucune information disponible.
Inflammabilité (solide, gaz):	Aucune information disponible.
Limites supérieures/inférieures d'inflammabilité ou d'explosivité	
Limites d'inflammabilité - supérieure (%):	Aucune information disponible.
Limites d'inflammabilité - inférieure (%):	Aucune information disponible.
Limites d'explosivité - supérieure:	Aucune information disponible.
Limites d'explosivité - inférieure:	Aucune information disponible.
Pression de vapeur:	Aucune information disponible.
Densité de vapeur:	Aucune information disponible.
Densité relative:	0.878
Solubilités	
Solubilité dans l'eau:	Insoluble
Solubilité (autre):	Aucune information disponible.
Coefficient de partition (n-octanol/eau):	Aucune information disponible.
Température d'auto-inflammation:	Aucune information disponible.
Température de décomposition:	Aucune information disponible.
Viscosité:	42.5 mm2/s (40 °C, Mesurée)
AUTRES INFORMATIONS	
VOC:	1.99 g/l (ASTM E 1868-10) 1.3 % (Method 24)

10 – Stabilité et réactivité

Réactivité:	Non réactif pendant l'utilisation normale.
Stabilité Chimique:	Ce produit est stable dans des conditions normales.
Possibilité de Réactions Dangereuses:	Aucun(e)(s) dans les conditions normales.
Conditions à Éviter:	Éviter tout chauffage ou contamination.
Matières Incompatibles:	Aucune information disponible.
Produits de Décomposition Dangereux:	La décomposition thermique ou la combustion peut libérer des oxydes de carbone et d'autres gaz ou vapeurs toxiques.

11 – Données toxicologiques

Informations sur les voies d'exposition probables

Ingestion:	Peut être ingéré par accident. L'ingestion peut provoquer irritation et malaises.
Inhalation:	L'inhalation est la principale voie d'exposition. À concentration élevée, les vapeurs, émanations ou brouillards peuvent être irritants pour le nez, la gorge et les muqueuses.
Contact avec la Peau:	Le contact prolongé avec la peau peut entraîner des rougeurs et de l'irritation.
Contact oculaire:	Le contact oculaire est possible ; il doit être évité.

Symptômes liés aux caractéristiques physiques, chimiques et toxicologiques

Ingestion:	Aucune information disponible.
Inhalation:	Aucune information disponible.
Contact avec la Peau:	Aucune information disponible.
Contact oculaire:	Aucune information disponible.

Informations sur les effets toxicologiques

Toxicité aiguë (répertorier toutes les voies d'exposition possibles)

Ingestion

Produit: ETAmél (): 2000 - 5000 mg/kg

RIDGID

Produit: RIDGID Dark Thread Cutting Oil (Etats-Unis)

Contact avec la peau
Produit: ETAmél (): 2000 - 5000 mg/kg

Inhalation
Produit: Non classé comme présentant une toxicité aiguë d'après les données disponibles.

Toxicité à dose répétée
Produit: Aucune information disponible.

Corrosion ou Irritation de la Peau
Produit: Aucune information disponible.

Blessure ou Irritation Grave des Yeux
Produit: Aucune information disponible.

Sensibilisation Respiratoire ou Cutanée
Produit: Aucune information disponible.

Cancérogénicité

Produit: Aucune information disponible.

Monographies du CIRC sur l'évaluation des risques de cancérogénicité pour l'homme:
Aucun composant cancérigène identifié

États-Unis. Rapport du NTP (National Toxicilogy Program) sur les cancérogènes :
Aucun composant cancérigène identifié

ÉTATS-UNIS. Substances spécialement réglementées par l'OSHA (29 CFR 1910.1001-1050), dans sa version modifiée:
Aucun composant cancérigène identifié

Mutagénicité des Cellules Germinales

In vitro
Produit: Aucune information disponible.

In vivo
Produit: Aucune information disponible.

Toxicité pour la reproduction
Produit: Aucune information disponible.

Toxicité Spécifique au Niveau de l'Organe Cible- Exposition Unique
Produit: Aucune information disponible.

Toxicité Spécifique au Niveau de l'Organe Cible- Expositions répétées
Produit: Aucune information disponible.

Risque d'Aspiration
Produit: Aucune information disponible.

Autres effets: Aucune information disponible.

12 – Données écologiques

Informations générales: Ce produit n'a pas été évalué pour la toxicité écologique ou d'autres effets de l'environnement.

13 – Recyclage

Instructions pour l'élimination: Le rejet, le traitement et l'élimination peuvent être soumis à des lois nationales, régionales ou locales. Éliminer les déchets dans une installation de traitement et d'élimination des déchets appropriée conformément aux lois et aux réglementations en vigueur et en fonction des caractéristiques du produit au moment de l'élimination. C'est la responsabilité de l'utilisateur de produit ou du propriétaire pour déterminer au moment de la disposition, qui se perdent les règlements doivent être appliqués.

Emballages Contaminés: Les conteneurs vides doivent être acheminés vers un site agréé pour le traitement des déchets à des fins de recyclage ou d'élimination.

14 – Transport

Ministère des transports des États-Unis (Department of Transportation, DOT)
Non réglementé.

IMDG
Non réglementé.

IATA
Non réglementé.

15 – Réglementation

Réglementations Fédérales des Etats-Unis

ÉTATS-UNIS. Substances spécialement réglementées par l'OSHA (29 CFR 1910.1001-1050), dans sa version modifiée

Aucun présent ou aucun présent dans des quantités réglementées.

Superfund Amendments and Reauthorization Act de 1986 (SARA)

Catégories de danger

Non classé comme dangereux selon le SGH

SARA 313 (Déclaration au TRI)

Aucun présent ou aucun présent dans des quantités réglementées.

États-Unis - Réglementation des États

États-Unis - Proposition 65 de la Californie

Aucun composant réglementé par la Proposition 65 de la Californie n'est présent.

RIDGID

Produit: RIDGID Dark Thread Cutting Oil (Etats-Unis)

16 – Renseignements divers

Rédaction ..... Ridge Tool Company

Norme De Fonctionnement 6-103

Révision ..... J

EC 45297

Date de publication..... 19 octobre 2020

Dernière révision ..... le 2 mai 2018

Quoi que la société Ridge Tool estime que les affirmations, informations techniques et recommandations ci-présentes sont dignes de confiance, celles-ci ne sont données qu'à titre indicatif, sans aucune garantie expresse ou implicite, et ne sauraient engager la responsabilité civile de la société en cas de pertes, dommages et intérêts, voire frais directs ou indirects relevant de leur application.

RIDGID

HOJA DE DATOS DE SEGURIDAD

Sección 1 – Identificación del producto y la compañía

Nombre del producto:	RIDGID Dark Thread Cutting Oil (Estados Unidos)
No. de catálogo:	11471, 11491, 41590, 41600, 41610, 70830
Uso recomendado:	Para cortar roscas
Restricciones de utilización:	Uso industria seulement

Nombre de la compañía:

North America
Ridge Tool Company
400 Clark Street
Elyria, Ohio 44035-6001, EE. UU.
Teléfono 1-800-519-3456 (EE. UU.) (8:00 a 17:00 hora estándar del este, lunes a viernes)
Teléfono de emergencia: Llame al 9-1-1 o al teléfono de emergencia local
www.RIDGID.com

Estándar De Funcionamiento:	6-103
Révision:	J
EC:	45297
Fecha de publicación:	19 de octubre de 2020
Fecha de la última revisión:	2 de mayo de 2018

RIDGID

Producto: RIDGID Dark Thread Cutting Oil (Estados Unidos)

Sección 2 – Identificación de peligros

Clasificación de Peligro

No clasificado como peligroso bajo GHS

Elementos de la Etiqueta

Símbolo de Peligro: No hay símbolo

Palabra de Advertencia: No hay palabra de advertencia.

Indicación de Peligro: No aplicable

Consejos de Prudencia No aplicable

Otros peligros que no dan lugar a clasificación SGA: Ninguno.

Sección 3 – Composición e información sobre ingredientes

Información general: Este producto no contiene silicona o aditivos clorados.

Componente(s) peligroso(s):

Determinación química	No. CAS	Concentración
Mineral oil	Confidencial	20 - <50%
Paraffin oils	Confidencial	20 - <50%

Las identidades químicas específicas y/o los porcentajes exactos han sido retenidos como secretos de fabricación.

Sección 4 – Primeros auxilios

Ingestión: Enjuagar a fondo la boca. Llamar a un CENTRO DE TOXICOLOGÍA / médico si la persona se encuentra mal. NO provocar el vómito.

Inhalación: Trasladar al aire libre. Llamar a un CENTRO DE TOXICOLOGÍA / médico si la persona se encuentra mal.

Contacto con la Piel: Quitar ropa y zapatos contaminados. Lave las áreas de contacto con agua y jabón. En caso de irritación cutánea: Consultar a un médico.

Contacto con los ojos: Lave con abundante agua. Si aparece irritación, busque asistencia médica. Continuar enjuagando durante al menos 15 minutos.

Los síntomas y efectos más importantes, tanto los agudos como los retardados

Síntomas: No hay datos disponibles.

Indicación de asistencia médica inmediata y tratamiento especial necesario

Tratamiento: Obtenga atención médica en caso de síntomas.

Sección 5 – Medidas contra incendios

Riesgos Generales de Incendio: Ningún riesgo excepcional de incendio o explosión señalado.

Medios de extinción adecuados (y no adecuados)

Medios de extinción apropiados: Agua pulverizada, neblina, CO2, polvos químicos, o espuma normal Seleccione el medio de extinción más apropiado, teniendo en cuenta la posible presencia de otros productos químicos.

Medios de extinción no apropiados: No utilice chorro de agua, pues extendería el fuego.

Peligros específicos derivados de la sustancia química: El calor puede ocasionar explosión de los recipientes. En caso de incendio se pueden formar gases nocivos.

Equipo especial de protección y medias de precaución para los bomberos

Medidas especiales de lucha contra incendios: No hay datos disponibles.

Equipos de protección especial que debe llevar el personal de lucha contra incendios: Los bomberos deben utilizar un equipo de protección estándar incluyendo chaqueta ignífuga, casco con careta, guantes, botas de goma, y, en espacios cerrados, equipo de respiración autónomo (SCBA, según sus siglas en inglés).

RIDGID

Producto: RIDGID Dark Thread Cutting Oil (Estados Unidos)

Sección 6 – Medidas en caso de liberación accidental

Precauciones personales, equipo de protección y procedimientos de emergencia:	Consulte la sección 8 de la FDS sobre equipo de protección personal. No toque los recipientes dañados o el material derramado a menos que esté usando ropa protectora adecuada. Mantener alejado al personal no autorizado. Asegúrese una ventilación apropiada.
Métodos y material de contención y de limpieza:	Absorber con arena u otro absorbente inerte. Detenga el flujo del material, si esto no representa un riesgo.
Precauciones Relativas al Medio Ambiente:	Evitar su liberación al medio ambiente. No contamine el drenaje o el alcantarillado. Impedir nuevos escapes o derrames de forma segura.

Sección 7 – Manipulación y almacenamiento

Precauciones para una manipulación segura:	Los usuarios finales deben seguir las mejores prácticas de la industria para el manejo y uso de este producto. La dirección puede ser encontrada usando la versión corriente de ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids Respete las normas para una manipulación correcta de productos químicos. Use equipo protector personal adecuado. No exponga al calor intenso cuando el producto puede ampliar y presurizar el contenedor.
Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades:	Vida útil: 720 días Guárdese en el recipiente original bien cerrado. Evite el contacto con agentes reductores. Consérvese alejado de materiales incompatibles.

RIDGID

Producto: RIDGID Dark Thread Cutting Oil (Estados Unidos)

Sección 8 – Controles contra la exposición: protección personal

Valores Límite

Determinación química	Tipo	Valores Límite de Exposición	Fuente
Mineral oil - Niebla	PEL	5 mg/m3	NOS. OSHA la tabla Z-1 límites para contaminantes del aire (29 CFR 1910.1000) (01 2017)
Mineral oil - Niebla	TWA	5 mg/m3	NOS. OSHA la Tabla Z-1-A (29 CFR 1910.1000) (1989)
Paraffin oils - Fracción inhalable	TWA	5 mg/m3	US. Valores límite de umbral de la ACGIH, en su forma enmendada (03 2014)
Paraffin oils - Niebla	PEL	5 mg/m3	NOS. OSHA la tabla Z-1 límites para contaminantes del aire (29 CFR 1910.1000) (02 2006)
Paraffin oils - Niebla	TWA	5 mg/m3	NOS. OSHA la Tabla Z-1-A (29 CFR 1910.1000) (1989)

Medidas de protección: Utilizar los equipos de protección individual según las necesidades.

Protección respiratoria: En caso de ventilación insuficiente, utilice un equipo respiratorio adecuado. Consulte al supervisor sobre la norma de la compañía de protección respiratoria.

Protección de los Ojos: Use gafas de seguridad con protectores laterales (o gafas estancas).

Protección de la Piel y del Cuerpo: Use ropa protectora apropiada para el riesgo de exposición. Tenga en cuenta otros peligros, como las piezas giratorias. Comuníquese con el profesional o fabricante de salud y seguridad para obtener información específica. Lleve guantes resistentes a los productos químicos, zapatos y traje protectores adecuados para el riesgo de exposición. Contacte con un especialista en salud y seguridad profesional o con el fabricante para obtener información específica.

Medidas de higiene: Seguir siempre buenas medidas de higiene personal, como lavarse después de manipular el material y antes de comer, beber y/o fumar. Lave rutinariamente la ropa de trabajo para eliminar los contaminantes. Deseche el calzado contaminado que no se pueda limpiar.

Sección 9 – Propiedades físicas y químicas

Aspecto	
Forma/estado:	liquido
Forma/Figura:	No hay datos disponibles.
Color:	Negro
Olor:	Ligero, petróleo/solvente
Umbral de olor:	No hay datos disponibles.
pH:	No hay datos disponibles.
Punto de fusión / Punto de congelación:	No hay datos disponibles.
Punto inicial de ebullición e intervalo de ebullición:	No hay datos disponibles.
Punto de inflamación:	196.11 °C (385.00 °F)
Tasa de evaporación:	No hay datos disponibles.
Inflamabilidad (sólido, gas):	No hay datos disponibles.
Límites superior/inferior de inflamabilidad o de explosividad	
Límite superior de inflamabilidad (LSI) (%):	No hay datos disponibles.
Límite inferior de inflamabilidad (LII) (%):	No hay datos disponibles.
Límite superior de explosividad:	No hay datos disponibles.
Límite inferior de explosividad:	No hay datos disponibles.
Presión de vapor:	No hay datos disponibles.
Densidad del vapor:	No hay datos disponibles.
Densidad relativa:	0.878
Solubilidad(es)	
Solubilidad en agua:	Insoluble
Solubilidad (otra):	No hay datos disponibles.
Coeficiente de reparto (n-octanol/agua):	No hay datos disponibles.
Temperatura de autoignición:	No hay datos disponibles.
Temperatura de descomposición:	No hay datos disponibles.
Viscosidad:	42.5 mm2/s (40 °C, medido)
OTRA INFORMACIÓN	
VOC:	1.99 g/l (ASTM E 1868-10) 1.3 % (Method 24)

Sección 10 – Estabilidad y reactividad

Reactividad:	No reactivo durante uso normal.
Estabilidad Química:	El material es estable bajo condiciones normales.
Posibilidad de Reacciones Peligrosas:	Ningunos en circunstancias normales.
Condiciones que Deben Evitarse:	Evite el calor o la contaminación.
Materiales Incompatibles:	No hay datos disponibles.
Productos de Descomposición Peligrosos:	La descomposición térmica o la combustión pueden liberar óxido de carbono u otros gases o vapores tóxicos.

Sección 11 – Información toxicológica

Información sobre posibles vías de exposición

Ingestión:	Puede ingerirse accidentalmente. La ingestión puede causar irritación y malestar.
Inhalación:	La inhalación es la principal vía de exposición. En concentraciones altas, los vapores, humos o neblinas pueden irritar la nariz, la garganta y las membranas mucosas.
Contacto con la Piel:	El contacto prolongado con la piel puede causar rubor e irritación.
Contacto con los ojos:	El contacto con los ojos es posible y debe evitarse.

Síntomas relacionados a las características físicas, químicas y toxicológicas

Ingestión:	No hay datos disponibles.
Inhalación:	No hay datos disponibles.
Contacto con la Piel:	No hay datos disponibles.
Contacto con los ojos:	No hay datos disponibles.

Información sobre los efectos toxicológicos

Toxicidad aguda (listar todas las vías de exposición posibles)

Ingestión Producto:	ETAmezcla (): 2000 - 5000 mg/kg

Contacto dermal
Producto: ETAmezcla (): 2000 - 5000 mg/kg

Inhalación
Producto: No clasificado en cuanto a toxicidad aguda con los datos disponibles.

Toxicidad por dosis repetidas
Producto: No hay datos disponibles.

Corrosión/Irritación Cutáneas
Producto: No hay datos disponibles.

Lesiones Oculares Graves/Irritación Ocular
Producto: No hay datos disponibles.

Sensibilización de la Piel o Respiratoria
Producto: No hay datos disponibles.

Carcinogenicidad
Producto: No hay datos disponibles.

Monografías de IARC sobre la evaluación de los riesgos carcinogénicos para los humanos:
No se identificaron componentes carcinogénicos

Programa Nacional de Toxicología de EUA (NTP). Reporte sobre carcinógenos:
No se identificaron componentes carcinogénicos

EEUU. Sustancias específicamente reguladas por la OSHA (29 CFR 1910.1001-1050), en su forma enmendada:
No se identificaron componentes carcinogénicos

Mutagenicidad en Células Germinales

En vitro
Producto: No hay datos disponibles.

En vivo
Producto: No hay datos disponibles.

Toxicidad para la reproducción
Producto: No hay datos disponibles.

Toxicidad Sistémica Específica de Órganos Diana- Exposición Única
Producto: No hay datos disponibles.

Toxicidad Sistémica Específica de Órganos Diana- Exposiciones Repetidas
Producto: No hay datos disponibles.

Peligro por Aspiración
Producto: No hay datos disponibles.

Otros síntomas: No hay datos disponibles.

Sección 12 –Información ecológica

Información general: Este producto no ha sido evaluado para la toxicidad ecológica u otros efectos ambientales.

Sección 13 – Consideraciones relativas a la eliminación

Instrucciones para la eliminación: Las actividades de descarga, tratamiento o eliminación pueden estar sujetos a leyes nacionales, estatales o locales. Elimine el residuo en una instalación adecuada de tratamiento y eliminación de acuerdo con las leyes y reglamentos correspondientes y características del producto en el momento de la eliminación. Es responsabilidad del usuario del producto o propietario para determinar en el momento de la disposición, que las regulaciones de residuos debe ser aplicado.

Envases Contaminados: Los contenedores vacíos deben ser llevados a un sitio de manejo aprobado para desechos, para el reciclado o eliminación.

Sección 14 – Información de transporte

DOT
No reglamentado.

IMDG
No reglamentado.

IATA
No reglamentado.

RIDGID

Producto: RIDGID Dark Thread Cutting Oil (Estados Unidos)

Sección 15 – Información sobre reglamentos

Reglamentos Federales de EE.UU.

EEUU. Sustancias específicamente reguladas por la OSHA (29 CFR 1910.1001-1050), en su forma enmendada

No están presentes, o no están presentes en lascantidades reguladas.

Ley de Enmiendas y Reautorización del Superfondo de 1986 (SARA)

Categorías de peligro

No clasificado como peligroso bajo GHS

SARA 313 (Reporte TRI, Acerca del Inventario de Liberación de Sustancias Tóxicas)

No están presentes, o no están presentes en lascantidades reguladas.

Regulaciones de un Estado de EUA

Proposición 65 del Estado de California, EUA

No hay presencia de ningún ingrediente reguladopor CA Prop 65.

Sección 16 – Información adicional

Preparado por ..... Ridge Tool Company

Estándar De Funcionamiento. 6-103

Revision ..... J

EC 45297

Fecha de emisión ..... 19 de octubre de 2020

Fecha de la última revisión..... 2 de mayo de 2018

RIDGE TOOL CONSIDERA QUE TODAS LAS DECLARACIONES, INFORMACIÓN TÉCNICA Y RECOMENDACIONES EN EL PRESENTE DOCUMENTO SON CONFIABLES, PERO SE PRESENTAN SIN GARANTÍA ALGUNA, SEA EXPRESA O IMPLÍCITA, Y NO ASUMIMOS RESPONSABILIDAD ALGUNA POR PÉRDIDAS, DAÑOS O GASTOS, DIRECTOS O CONSECUENTES, QUE SURJAN DE SU USO.

RMR-141 SAFETY DATA SHEET

Date Prepared : 04/29/2015
SDS No :

RMR-141 RTU

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: RMR-141 RTU
GENERAL USE: Ready to Use Disinfectant Cleaner
PRODUCT DESCRIPTION: Disinfectant & Cleaner
PRODUCT CODE:
CHEMICAL FAMILY: Quaternary ammonium chloride blend

DISTRIBUTOR
RMR Solutions, LLC
201 Appian Way Dr, Suite 202
Brighton MI, 48116-2478
Emergency Phone: 866-822-8744
Customer Service: 866-822-8744
E-Mail: info@rmrsolutions.com
EPA REG. NO.: 61178-2

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEM-TREC (Medical and Transportation): 800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 3
Eye Irritation, Category 2B

GHS LABEL

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H320: Causes eye irritation.
H316: Causes mild skin irritation.
H303: May be harmful if swallowed.

PRECAUTIONARY STATEMENT(S)

Prevention:

P264: Wash hands thoroughly after handling.
P234: Keep only in original packaging.
P102: Keep out of reach of children.

Response:

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310: Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents/container according to all local, state and Federal regulations.

EMERGENCY OVERVIEW

RMR Solutions, LLC

PHYSICAL APPEARANCE: Clear Liquid

IMMEDIATE CONCERNS: Mild eye irritant.

POTENTIAL HEALTH EFFECTS

EYES: Contact may cause mild eye irritation.

SKIN: May be mildly irritating with prolonged or repeated contact.

SKIN ABSORPTION: No known significant effects or critical hazards.

INGESTION: Although of moderate to low toxicity, ingestion of large amounts can cause gastrointestinal irritation, nausea, vomiting, diarrhea.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: No known significant effects or critical hazards.

TERATOGENIC EFFECTS: No known significant effects or critical hazards.

CARCINOGENICITY: No known significant effects or critical hazards.

MUTAGENICITY: No known significant effects or critical hazards.

ROUTES OF ENTRY: Eye, skin, ingestion.

CANCER STATEMENT: None

WARNING CAUTION LABELS: Irritant

PHYSICAL HAZARDS: None Expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
n-Alkyl dimethyl benzyl ammonium chloride (C12-C18)	0.07	68391-01-5
N-alkyl Dimethyl Ethyl Benzyl Ammonium Chloride (C12-C14)	0.07	68956-79-6
Water	95 - 99	7732-18-5

4. FIRST AID MEASURES

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention immediately.

SKIN: Remove contaminated clothing. Immediately flush with water followed by washing with mild soap. Seek medical attention.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Remove victim to fresh air and monitor. Seek medical advise if irritation persists.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Slight discomfort with redness, watering eyes.

SKIN: Prolonged contact may cause irritation marked by redness, slight burning sensation.

SKIN ABSORPTION: None Expected.

INGESTION: Stomach upset, vomiting.

INHALATION: Irritation of nose, throat and lungs with coughing, sneezing, possible difficulty breathing.

ACUTE TOXICITY: Irritating to eyes, mild skin irritation.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: None

EXTINGUISHING MEDIA: Not required.

EXPLOSION HAZARDS: None

FIRE FIGHTING PROCEDURES: No special requirements.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products may include: Carbon dioxide, Carbon monoxide, nitrogen oxides.

PMP Solutions, LLC

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Avoid runoff into storm sewers and ditches which lead to waterways.

LARGE SPILL: Avoid walking in material. Prevent product from entering into stream, soil, storm sewer or other bodies of water.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid discharges into open waterways.

LAND SPILL: Avoid discharge to soil.

AIR SPILL: NA = Not Applicable

GENERAL PROCEDURES: Isolate spill or leak area immediately. Keep unauthorized personnel away. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, or confined areas. Absorb with dry earth, sand or other non-combustible material and transfer to containers.

RELEASE NOTES: Product may be harmful to aquatic life.

SPECIAL PROTECTIVE EQUIPMENT: No special requirements.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Do not contaminate water, food, or feed by storage or disposal.

HANDLING: Avoid contact with skin and eyes. Wash hands before eating, drinking, smoking or using toilet facilities.

STORAGE: Store only in original container. Do not reuse empty container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, and water sources.Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

STORAGE TEMPERATURE: Store at ambient temperatures.

STORAGE PRESSURE: Store at ambient atmospheric pressure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side shields.

SKIN: Rubber or other chemical resistant gloves.

RESPIRATORY: Where danger of mist contact may occur, wear NIOSH approved respiratory protection for mists.

PROTECTIVE CLOTHING: No special requirements.

WORK HYGIENIC PRACTICES: Wash with soap and water after handling. Do not eat, drink or smoke while using product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic.

ODOR THRESHOLD: Not Established

COLOR: Water Clear

pH: 10.0 to 11.0

PERCENT VOLATILE: >98

FLASH POINT AND METHOD: None

FLAMMABLE LIMITS: N/A

AUTOIGNITION TEMPERATURE: NA = Not Applicable

VAPOR PRESSURE: 20 mm Hg at 20°C (68°F)

VAPOR DENSITY: ~ 1 Air = 1

BOILING POINT: 212° F; 100° C

FREEZING POINT: 32° F; 0° C

THERMAL DECOMPOSITION: Not Available

SOLUBILITY IN WATER: Complete

RMR Solutions, LLC

EVAPORATION RATE: (Water =1) 1.0

DENSITY: 8.33 at 20°C (68°F)

SPECIFIC GRAVITY: 1 grams/ml. at 20°C (68°F)

VISCOSITY: Water thin.

(VOC): None

10. STABILITY AND REACTIVITY

REACTIVITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: None Expected.

INCOMPATIBLE MATERIALS: Strong oxidizers

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)
n-Alkyl dimethyl benzyl ammonium chloride (C12-C18)	> 1890 mg/kg (rat)	> 2000 mg/kg (rabbit)
N-alkyl Dimethyl Ethyl Benzyl Ammonium Chloride (C12-C14)	> 500 mg/kg (rat)	> 2000 mg/kg (rabbit)

DERMAL LD_{50}: > 2000 mg/kg male and female rabbits.

ORAL LD_{50}: > 5000 mg/kg Male and Female rats.

EYE EFFECTS: Mild to moderate eye irritant.

SKIN EFFECTS: May irritate skin with prolonged or repeated contact.

CARCINOGENICITY

IARC: No listed substance

CORROSIVITY: NA = Not Applicable

NEUROTOXICITY: No known significant effects or critical hazards.

GENETIC EFFECTS: No known significant effects or critical hazards.

REPRODUCTIVE EFFECTS: No known significant effects or critical hazards.

TARGET ORGANS: No known significant effects or critical hazards.

MUTAGENICITY: No known significant effects or critical hazards.

PMR Solutions, LLC

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Not Established

ECOTOXICOLOGICAL INFORMATION: This material may be toxic to aquatic life.

AQUATIC TOXICITY (ACUTE): Not Established

CHEMICAL FATE INFORMATION: This product is biodegradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Attempt to use product completely in accordance with intended use. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at your local office, or the nearest EPA regional office for guidance.

FOR LARGE SPILLS: Consult with local and state authorities for large volume disposal.

PRODUCT DISPOSAL: Small quantities (less than 1 gallon) of used material may be flushed to sanitary sewer with copious amounts of water. Larger quantities must be disposed of by a licensed disposal company.

EMPTY CONTAINER: Triple rinse container promptly after emptying. Fill container 1/4 full with water and recap. Shake for 10 seconds. Drain and repeat. Offer for recycling if available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated.

PLACARDS: None

LABEL: None

U.S. CUSTOMS HARMONIZATION NUMBER: 3808.94.0000

AIR (ICAO/IATA)

SHIPPING NAME: Not regulated.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not regulated.

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Health - Acute

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: No listed substance

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: No listed substance

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are listed on the TSCA Chemical Inventory.

CALIFORNIA PROPOSITION 65: No listed substance

CARCINOGEN: No listed substance

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): Regulated

RMR Solutions, LLC

16. OTHER INFORMATION

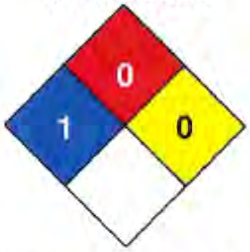
APPROVED BY: **TITLE:**

PREPARED BY: Regulatory Affairs Department **Date Prepared:**

HMIS RATING

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA CODES



MANUFACTURER DISCLAIMER: This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of the product either alone or in combination with other products. It is the responsibility of the employer and/or user to provide a safe workplace, using health and safety information contained herein as a guide. This company will accept no liability for damages or losses incurred from the improper handling and use of this product.

MATERIAL SAFETY DATA SHEET

TVM DOOR & WINDOW GUN/STRAW FOAM

1. Product and Company Identification

1.1. Identification of the substance or preparation:
- TVM Door & Window Gun/Straw Foam

1.2. Use of the substance of preparation:
Polyurethane foam

1.3. Company/undertaking identification:
TVM BUILDING PRODUCTS
169 JARI DRIVE
JOHNSTOWN, PA 15904
(888) 699-1645

1.4. 24 hour emergency assistance: INFOTRAC: (800) 535 - 5053

2. Hazards Identification

- Extremely flammable
- Harmful by inhalation
- Irritating to eyes, respiratory system and skin
- May cause sensitization by inhalation and skin contact
- Danger of serious damage to health by prolonged exposure through inhalation

3. Composition/Information on Ingredients

Hazardous Ingredients	CAS No.	Concentration (%)	Hazard Symbol
Polymethylenephenylisocyanate	9016-87-9	> 20	Xn
Dimethyl ether	115-10-6 204-065-8	1 - <15	F+
Propane	74-98-6 200-827-9	1 - <5	F+
Isobutane	75-28-5 200-857-2	1 - <10	F+

4. First Aid Measures

4.1. Eye Contact: Irritation of the eye tissue, Lacrimation
- Flush immediately with plenty of water
- Do NOT apply neutralizing agents
- Seek medical attention

4.2. Skin Contact: Tingling, irritation of the skin
- Rinse immediately with plenty of water
- Seek medical attention

4.3. After Inhalation: Dry/sore throat, cough, irritation of the nasal mucous membranes and respiratory tract, runny nose
- Remove the victim to fresh air
- Seek medical attention

4.4. After Ingestion:
- Never give water to an unconscious person
- Rinse mouth thoroughly with water
- Immediately after ingestion drink lots of water
- Do not induce vomiting
- Seek medical attention

5. Fire Fighting Measures

5.1. Suitable extinguishing media:
- Large quantities of water
- Polyvalent foam
- BC powder
- Carbon dioxide

5.2. Special exposure hazards:
- Release of toxic and corrosive gases/vapors: phosphorus oxides, hydrogen chloride, carbon monoxide and carbon dioxide
- Gas/vapor spreads at floor level: ignition hazard
- Gas/vapor flammable with air within explosion limits
- Aerosol may explode under the effect of heat

5.3. Instructions:
- Dilute toxic gases with water spray
- Cool unopened containers exposed to fire or heat with water
- Take account of toxic firefighting water
- Do not move the load if exposed to heat

5.4. Special protective equipment for firefighters:
- Heat/fire exposure: compressed air/oxygen apparatus
- Full protective clothing

6. Accidental Release Measures

6.1. Environmental precautions:
- Use appropriate containment to avoid environmental contamination

6.2. Methods of cleaning up:
- Allow product to solidify and remove it by mechanical means
- Remove uncured foam with acetone
- Clean contaminated surfaces with acetone
- Wash contaminated equipment and clothing before reuse

7. Handling and Storage

7.1. Handling:
- Apply standard industrial hygiene - avoid contact
- Use only in well ventilated area
- In case of insufficient ventilation: keep naked flames/sparks away
- Remove contaminated clothing and wash before reuse

7.2. Storage:
- Keep out of direct sunlight
- Keep away from: heat sources, ignition sources, acids, bases
- Store product in a cool dry place

Ideal storage temperature : 60°F-80°F (15.5°C-26.6°C)
Storage life : 365 days
Storage above 90°F (32.2°C) will shorten shelf life
Foam stored below 55°F (12.7°C) should be warmed prior to use, using approve warming methods
Materials for packaging : aerosol dispenser

8. Exposure controls/Personal protection

8.1. Exposure limit values:

Polymethylene Polyphenyl Isocyanate:
WEL-LTEL: 0.02 (-NCO) mg/m^3
WEL-STEL: 0.07 (-NCO) mg/m^3

Propane:
TLV-TWA: 1000 ppm
TRGS 900: 1800 mg/m^3; 1000ppm
MAK: 1800 mg/m^3; 1000ppm
GWBB-8 h: 1000 ppm

Isobutane:
TRGS 900: 2400 mg/m^3; 1000ppm
MAK: 2400 mg/m^3; 1000ppm
GWBB-8 h: 1000 ppm

Dimethyl Ether:
WEL-LTEL: 766 mg/m^3; 400 ppm
WEL-STEL: 958 mg/m^3; 500 ppm
TRGS 900: 1900 mg/m^3; 1000 ppm
MAK: 1900 mg/m^3; 1000 ppm
MAC-TGG 8 h:950 mg/m^3
MAC-TGG 15 min: 1500 mg/m^3
VME-8 h: 1920 mg/m^3; 1000 ppm
GWBB-8 h: 1920 mg/m^3; 1000 ppm
EC: 1920 mg/m^3; 1000 ppm

8.2. Exposure Controls:
8.2.1. Occupational exposure controls:
- Use only in well ventilated areas
- Measure concentration in air regularly

8.3. Personal Protection:
8.3.1. Respiratory protection:
- In case of insufficient ventilation, use respiratory protection with filter type A

8.3.2. Hand protection:
- Chemical resistant gloves

8.3.3. Eye protection:
- Safety glasses
- Safety goggles suggested

8.3.4. Skin protection:
- Suitable protective work clothing

9. Physical and Chemical Properties

9.1. General Information:

Appearance (at 20°C)	: Aerosol
Color	: Yellow (Champagne)

9.2. Important Health, safety and environmental information:

Flammability	: Contains extremely flammable components
Water solubility	: Insoluble
Soluble in	: Organic solvents

10. Stability and Reactivity

10.1. Conditions to avoid/reactivity:
- Unstable on exposure to heat

10.2. Materials to avoid:
- Keep away from sources of heat, ignition, acids, bases and open flames

10.3. Hazardous decomposition products:
- Release of toxic and corrosive gases/vapors (phosphorus oxides, hydrogen chloride, carbon monoxide and carbon dioxide) on burning
- Release of toxic/combustible gases/vapors (hydrogen cyanide) on heating
- May polymerize on exposure to temperature rise
- May polymerize with many compounds including (strong) bases and amines
- Reacts violently with some acids and bases

11. Toxicological Information

11.1. Acute Toxicity:

Polymethylenepolyphenylisocyanate:

LD50 oral rat	: >10,000 mg/kg
LD50 dermal rabbit	: >5,000 mg/kg

Isobutane:

LC50 inhalation rat	: 658 mg/L/4 h

Propane:

LC50 inhalation rat	: 513 mg/L/4 h
LC50 inhalation rat	: 280,000 ppm/4 h

11.2. Chronic Toxicity:

Polymethylenepolyphenylisocyante:
Carcinogenicity (MAK) : Category 3B
IARC Classification : 3

Dimethyl Ether:
Teratogenicity (MAK) : Group D

11.3. Routes of Exposure: inhalation, eyes and skin

11.4. Acute effects/symptoms (upon overexposure):

After inhalation:
- Dry/sore throat
- Coughing
- Irritation of the respiratory tract
- Irritation of the nasal mucous membranes
- Runny nose
- The following symptoms may appear at a later time:
  - Inflammation of the respiratory tract
  - Risk of lung edema
  - Respiratory difficulties

After eye contact:
- Irritation of the eye tissue
- Lacrimation

After Skin Contact:
- Tingling/irritation of the skin

11.5. Chronic Effects
- May cause sensitization by skin contact and/or inhalation
- Contains substance with uncertain carcinogenic properties (polymethylenephenylisocyanate)

On continuous exposure/contact:
- Feeling of weakness
- Body temperature rise
- Tremor
- Headache
- Skin rash/inflammation
- May stain the skin
- Dry skin
- Coughing
- Inflammation of the respiratory tract / Risk of Pneumonia
- Respiratory difficulties

12. Ecological Information

12.1. Ecotoxicity:
No data available

12.2. Mobility:
Volatile organic compounds (VOC) : 20%
Insoluble in water

For other physicochemical properties see section 9

13. Disposal Considerations

- Release all pressure prior to disposal
- Do not discharge into drains or the environment
- Dispose of in accordance with federal, state, provincial and local regulations

14. Transport Information

US. Land, D.O.T.	ADR (road)	RID (rail)	ADNR (inland waterways)	IMDG (maritime transport)	ICAO (air freight)
UN Number: 1950 Class: 2.1 Proper Shipping Name: UN 1950, Aerosols	Class: 2 Classification code 5F Danger Label Packages: 2.1	Class: 2 Classification code 5F Danger Label Packages: 2.1	Class: 2 Classification code 5F Danger Label Packages: 2.1	Class: 2.1 EMS: F-D, S-U	Class: 2.1 Packing Instructions for Cargo/Passenger Aircraft: 203/Y203

15. Regulatory Information

15.1. Toxic Substances Control Act (TSCA):
- All components listed in TSCA inventory

15.2. NFPA Profile:
- Health 2, Flammability 1, Reactivity 1

15.3. SARA Title III:
- Section 312 Hazard Class: Acute: Yes, Chronic: Yes, Fire: No, Pressure: Yes, Reactive: Yes
- Section 313 Toxic Chemicals: Polymethylenephenylisocyanate (CAS# 9016-87-9), Dimethyl ether (CAS #115-10-6), isobutane (CAS # 75-28-5), propane (74-98-6)

15.4. State Substance List:
- This product contains listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts and New Jersey: Polymethylenephenylisocyanate

15.5. WHMIS Classification:
- A, D2A

15.6. Domestic Substances List (DSL):
- Chemical components listed in DSL except when exempted

16. Other Information

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

SAFETY DATA SHEET
THE DOW CHEMICAL COMPANY

Product name: DOWSIL™ HVAC/R Sealant Clear

Issue Date: 08/22/2023
Print Date: 08/23/2023

THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: DOWSIL™ HVAC/R Sealant Clear

Recommended use of the chemical and restrictions on use
Identified uses: Adhesive, binding agents

COMPANY IDENTIFICATION
THE DOW CHEMICAL COMPANY
2211 H.H. DOW WAY
MIDLAND MI 48674
UNITED STATES

Customer Information Number: 800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: CHEMTREC +1 800-424-9300
Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification
GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Not a hazardous substance or mixture.

Label elements

Precautionary statements
Prevention
Use only outdoors or in a well-ventilated area.

Other hazards
No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

® ™ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

Chemical nature: Silicone elastomer
This product is a mixture.
Contains no hazardous ingredients according to GHS

4. FIRST AID MEASURES

Description of first aid measures
General advice:
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact: Wash off with plenty of water.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: Rinse mouth with water. No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed:
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Skin contact may aggravate preexisting dermatitis.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Water spray.

Unsuitable extinguishing media: None known..

Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon oxides. Silicon oxides.

Unusual Fire and Explosion Hazards: Exposure to combustion products may be a hazard to health..

Advice for firefighters

Fire Fighting Procedures: Use water spray to cool unopened containers.. Evacuate area.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations..
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Wipe up or scrape up and contain for salvage or disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
See sections: 7, 8, 11, 12 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling: Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.
Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Conditions for safe storage: Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.
Unsuitable materials for containers: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Exposure controls
Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure

limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	paste
Color	colourless
Odor	acetic acid
Odor Threshold	No data available
pH	Not applicable
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	Not applicable
Flash point	Not applicable
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	Not classified as a flammability hazard
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	1.04

Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available
Particle size	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Can react with strong oxidizing agents.

Conditions to avoid: None known.

Incompatible materials: Avoid contact with oxidizing materials.

Hazardous decomposition products:
Decomposition products can include and are not limited to: Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data are available.

Information on likely routes of exposure
Eye contact, Skin contact, Ingestion.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute Toxicity Endpoints:
Not classified based on available information.

Acute oral toxicity

Information for the Product:

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):
LD50, > 5,000 mg/kg Estimated.

Acute dermal toxicity

Information for the Product:

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):
LD50, > 2,000 mg/kg Estimated.

Acute inhalation toxicity

Information for the Product:

At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material may cause respiratory irritation.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Not classified based on available information.

Information for the Product:

Based on information for component(s):
Prolonged exposure not likely to cause significant skin irritation.
May cause drying and flaking of the skin.

Serious eye damage/eye irritation

Not classified based on available information.

Information for the Product:

Based on information for component(s):
May cause slight temporary eye irritation.
May cause mild eye discomfort.

Sensitization

For skin sensitization:
Not classified based on available information.

For respiratory sensitization:
Not classified based on available information.

Information for the Product:

For skin sensitization:
Contains component(s) which did not cause allergic skin sensitization in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Not classified based on available information.

Information for the Product:

Product test data not available.

Aspiration Hazard

Not classified based on available information.

Information for the Product:

Based on physical properties, not likely to be an aspiration hazard.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Not classified based on available information.

Information for the Product:

Product test data not available.

Carcinogenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Teratogenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Reproductive toxicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Mutagenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data are available.

Toxicity
No data available.

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION 1: Identified Uses. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility of the waste generator. Do not re-use containers for any purpose.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code: Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
No SARA Hazards

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Right To Know
The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components	CASRN
Polydimethylsiloxane hydroxy-terminated	70131-67-8
Silicon dioxide	7631-86-9

California Prop. 65
This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

United States TSCA Inventory (TSCA)
All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Hazard Rating System
NFPA

Health	Flammability	Instability
0	1	0

HMIS

Health	Flammability	Physical Hazard
0/	1	0

Revision
Identification Number: 99150523 / A001 / Issue Date: 08/22/2023 / Version: 10.2
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Full text of other abbreviations
AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control

Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.
US

Hercules Duck Butter Pipe Joint Lubricant

HCC Holdings, Inc. an Oatey Affiliate

Version No: **1.1**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **12/07/2021**
Print Date: **12/07/2021**
S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Hercules Duck Butter Pipe Joint Lubricant
Synonyms	Not Available
Other means of identification	40501, 40506

Recommended use of the chemical and restrictions on use

Relevant identified uses	Lubricant

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**HCC Holdings, Inc. an Oatey Affiliate**
Address	4700 West 160th Street Cleveland, OH 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	Not Available
Email	info@oatey.com

Emergency phone number

Association / Organisation	**Chemtrec**
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	Emergency First Aid: 1-877-740-5015

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Serious Eye Damage/Eye Irritation Category 2B

Label elements

Hazard pictogram(s)	Not Applicable
Signal word	**Warning**

Hazard statement(s)

	Causes eye irritation.

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
68606-06-4	15-25	fatty acids, vegetable oil, potassium sodium salts

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

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: • Wash out immediately with fresh running water. • Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. • Seek medical attention without delay; if pain persists or recurs seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	Wash off immediately with soap and water. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures

Extinguishing media

- Water spray or fog.
- Foam.
- Dry chemical powder.

Continued...

- BCF (where regulations permit).
- Carbon dioxide.

CAUTION: Use of water spray when fighting fire may be inefficient.

Special hazards arising from the substrate or mixture

Fire Incompatibility	‣ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	‣ Alert Fire Department and tell them location and nature of hazard. ‣ Wear full body protective clothing with breathing apparatus. ‣ Prevent, by any means available, spillage from entering drains or water course. ‣ Use water delivered as a fine spray to control fire and cool adjacent area. ‣ Avoid spraying water onto liquid pools. ‣ **DO NOT** approach containers suspected to be hot. ‣ Cool fire exposed containers with water spray from a protected location. ‣ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	‣ Slight fire hazard when exposed to heat or flame. ‣ Heating may cause expansion or decomposition leading to violent rupture of containers. ‣ On combustion, may emit toxic fumes of carbon monoxide (CO). ‣ May emit acrid smoke. ‣ Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO_2) other pyrolysis products typical of burning organic material. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	‣ Remove all ignition sources. ‣ Clean up all spills immediately. ‣ Avoid breathing vapours and contact with skin and eyes. ‣ Control personal contact with the substance, by using protective equipment. ‣ Contain and absorb spill with sand, earth, inert material or vermiculite. ‣ Wipe up. ‣ Place in a suitable, labelled container for waste disposal.
Major Spills	Moderate hazard. ‣ Clear area of personnel and move upwind. ‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ Wear breathing apparatus plus protective gloves. ‣ Prevent, by any means available, spillage from entering drains or water course. ‣ No smoking, naked lights or ignition sources. ‣ Increase ventilation. ‣ Stop leak if safe to do so. ‣ Contain spill with sand, earth or vermiculite. ‣ Collect recoverable product into labelled containers for recycling. ‣ Absorb remaining product with sand, earth or vermiculite. ‣ Collect solid residues and seal in labelled drums for disposal. ‣ Wash area and prevent runoff into drains. ‣ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Continued...

Precautions for safe handling

Safe handling	‣ Avoid all personal contact, including inhalation. ‣ Wear protective clothing when risk of exposure occurs. ‣ Use in a well-ventilated area. ‣ Prevent concentration in hollows and sumps. ‣ **DO NOT** enter confined spaces until atmosphere has been checked. ‣ Avoid smoking, naked lights or ignition sources. ‣ Avoid contact with incompatible materials. ‣ When handling, **DO NOT** eat, drink or smoke. ‣ Keep containers securely sealed when not in use. ‣ Avoid physical damage to containers. ‣ Always wash hands with soap and water after handling. ‣ Work clothes should be laundered separately. ‣ Use good occupational work practice. ‣ Observe manufacturer's storage and handling recommendations contained within this SDS. ‣ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
Other information	‣ Store in original containers. ‣ Keep containers securely sealed. ‣ No smoking, naked lights or ignition sources. ‣ Store in a cool, dry, well-ventilated area. ‣ Store away from incompatible materials and foodstuff containers. ‣ Protect containers against physical damage and check regularly for leaks. ‣ Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	‣ Metal can or drum ‣ Packaging as recommended by manufacturer. ‣ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	‣ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)

Continued...

	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). 2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Personal protection

Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Skin protection

See Hand protection below

Hands/feet protection

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

Body protection

See Other protection below

Other protection

- Overalls.
- P.V.C apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

Respiratory protection

No special protective equipment required. If respirators are used, OSHA requires a written respiratory program that includes at least: medical certification training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Off-White Paste

Physical state	Liquid	**Relative density (Water = 1)**	1.2
Odour	Bland	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	~9	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	<0	**Viscosity (cSt)**	Not Available

Continued...

Initial boiling point and boiling range (°C)	>104	Molecular weight (g/mol)	Not Available
Flash point (°C)	>104	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (%)	5
Vapour density (Air = 1)	Not Available	VOC g/L	<5

SECTION 10 Stability and reactivity

Reactivity	Not reactive under normal conditions of use.
Chemical stability	‣ Unstable in the presence of incompatible materials. ‣ Product is considered stable. ‣ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	None expected under normal conditions of storage and use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	Do not taste or swallow
Skin Contact	May cause mild skin irritation.
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – *Data either not available or does not fill the criteria for classification*
✓ – *Data available to make classification*

SECTION 12 Ecological information

Toxicity

Continued...

Hercules Duck Butter Pipe Joint Lubricant	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available
fatty acids, vegetable oil, potassium sodium salts	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	• **DO NOT**allow wash water from cleaning or process equipment to enter drains. • It may be necessary to collect all wash water for treatment before disposal. • In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. • Where in doubt contact the responsible authority. • Recycle wherever possible or consult manufacturer for recycling options. • Consult State Land Waste Authority for disposal. • Bury or incinerate residue at an approved site. • Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
fatty acids, vegetable oil, potassium sodium salts	Not Available

Transport in bulk in accordance with the ICG Code

Continued...

Product name	Ship Type
fatty acids, vegetable oil, potassium sodium salts	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

fatty acids, vegetable oil, potassium sodium salts is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

State Regulations

US. California Proposition 65

None Reported

National Inventory Status

National Inventory	Status
USA - TSCA	Yes
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Continued...

Revision Date	12/07/2021
Initial Date	11/23/2021

Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Quimicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

DX-Cartridge

Safety Data Sheet

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

Revision date: 11/27/2023 Issue date: 11/27/2023 Supersedes: 8/4/2022 Version: 3.2

SECTION 1: Identification

1.1. Identification

Product form	Article
Name	DX-Cartridge
Product code	BU Direct Fastening

1.2. Recommended use and restrictions on use

Recommended use	CARTRIDGES FOR TOOLS, BLANK
Restrictions on use	For professional use only

1.3. Supplier

Supplier
Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
Plano, TX 75024
USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet
Hilti AG
Feldkircherstraße 100
Schaan, 9494
Liechtenstein
T +423 234 2111
df-hse@hilti.com

1.4. Emergency telephone number

Emergency number

Emergency CONTACT (24-Hour-Number)
GBK/Infotrac ID 101022
(USA domestic) 1 800 535 5053
or international (001) 352 323 3500

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Explosives, Division 1.4	H204	Fire or projection hazard.

Full text of H-statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)

Signal word (GHS US)	Warning
Hazard statements (GHS US)	H204 - Fire or projection hazard.
Precautionary statements (GHS US)	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P250 - Do not subject to shock, friction, grinding. P280 - Wear eye protection.

P370+P380+P375 - In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P372 - Explosion risk in case of fire.
P401 - Store in accordance with local regulations on explosives.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification: This article contains hazardous substances or preparations not intended to be released under normal or reasonably foreseeable conditions of use. The dismantling of the article is prohibited!. Keep away from ignition sources (including static discharges).

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments: max. net explosives weight each cartridge in mg:
Caliber 6.8/11 (cal .27 short) white: 130; brown: 140; green: 160; yellow: 180; red: 230; titanium: 230; black: 260
Caliber 6.8/18 (cal .27 long) green: 190; yellow: 220; blue: 300; red: 330; black: 410
Caliber 6.3/10 (cal. 25) green 120; yellow: 190; red: 230; black: 250
Caliber 5.5/16 (cal .22) grey: 105; brown: 120; green: 175; yellow: 210; red: 270
Within the cartridges the explosive ingredients (gun powder and priming composition) are hermetically separated from the environment. They will be only opened with effort and under destruction of the article.
Propellant powder: glycerol trinitrate containing nitrocellulose powder
Mass per cartridge: essentially dependent on the required power (100-400 mg)
Exposed propellant powder outside a cartridge is harmful if swallowed and highly flammable; without tamping no explosion risk.
Packed safety cartridges don't represent a significant risk.
In case of reaction no dangerous fragments or projectiles will be formed.
Mechanical or thermal attempts to expose the primer composition lead to an immediate reaction of the dangerous ingredients.

Name	Product identifier	%	GHS-US classification
Iron	CAS-No.: 7439-89-6	50 – 70	Not classified
Plastics (PP / PA / PC)	-	15 – 40	Not classified
cellulose nitrate	CAS-No.: 9004-70-0	5 – 21	Expl. 1.1, H201
glycerol trinitrate	CAS-No.: 55-63-0	2 – 10	Unst. Expl., H200 Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 2, H373

Name	Product identifier	%	GHS-US classification
lead styphnate	CAS-No.: 15245-44-0	0.1 – 3	Unst. Expl., H200 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Repr. 1A, H360 STOT RE 2, H373
barium nitrate	CAS-No.: 10022-31-8	0.1 – 3	Ox. Sol. 2, H272 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
copper	CAS-No.: 7440-50-8	0 – 2	Not classified
zinc	CAS-No.: 7440-66-6	0 – 2	Not classified
diphenylamine	CAS-No.: 122-39-4	0.1 – 1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Eye Irrit. 2A, H319 STOT RE 2, H373
tetrazene	CAS-No.: 109-27-3	0 – 1	Unst. Expl., H200 Eye Irrit. 2A, H319

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general: In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms: No additional information available. No harmful effects are to be expected if used properly.
The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released.
The dismantling of the article is prohibited.

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Dry powder. Water spray.

Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Explosion hazard	Explosion risk in case of fire.
Hazardous decomposition products in case of fire	Carbon monoxide. Carbon dioxide (CO_2). Nitrous gasses.

5.3. Special protective equipment and precautions for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Pick up loose cartridges only by hand. Exposed ingredients must be swept up carefully and phlegmatized in a water container, labelled according the regulations, wipe down with water the contamined area. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	Hazardous waste due to potential risk of explosion.
Precautions for safe handling	Do not subject to grinding,shock, friction. Take precautionary measures against static discharge. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Ground/bond container and receiving equipment.
Storage conditions	Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Store in a dry place.
Incompatible products	Strong bases. Strong acids.
Storage temperature	5 – 25 °C
Information on mixed storage	Keep away from : Ignition sources. Do not store with: Store according to local legislation.

Storage area	Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DX-Cartridge	
No additional information available	

cellulose nitrate (9004-70-0)	
No additional information available	

glycerol trinitrate (55-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Nitroglycerin (NG)
ACGIH OEL TWA [ppm]	0.05 ppm
Remark (ACGIH)	Vasodilation
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Nitroglycerin
OSHA PEL C	2 mg/m³
OSHA PEL C [ppm]	0.2 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

lead styphnate (15245-44-0)	
No additional information available	

barium nitrate (10022-31-8)	
No additional information available	

copper (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Copper, as Cu
ACGIH OEL TWA	0.2 mg/m³ (Fume) 1 mg/m³ (Dusts and mists)
Remark (ACGIH)	TLV® Basis: Irr; GI; metal fume fever
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Copper
OSHA PEL TWA [1]	0.1 mg/m³ (Fume (as Cu)) 1 mg/m³ (Dusts and mists (as Cu))
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

zinc (7440-66-6)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	2 mg/m³

diphenylamine (122-39-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Diphenylamine
ACGIH OEL TWA	10 mg/m³
Remark (ACGIH)	Liver & kidney dam; hematologic eff
Regulatory reference	ACGIH 2023

tetrazene (109-27-3)
No additional information available

Iron (7439-89-6)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m³ as iron oxide dust or fume

Plastics (PP / PA / PC)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	No additional information available.
Environmental exposure controls	Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
When using cartridge operated tools, sufficient ear protection must be worn.

Hand protection:
Not required for normal conditions of use

Eye protection:
Chemical goggles or safety glasses. ISO 16321-1

Skin and body protection:
When using cartridge operated tools, sufficient ear protection must be worn.

Respiratory protection:
Respiratory protection not required in normal conditions

Personal protective equipment symbol(s):

Thermal hazard protection:
No information available.

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	According to product specification
Odour	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	Not applicable
Boiling point	No data available
Flash point	Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity, kinematic	Not applicable
Viscosity, dynamic	No data available
Explosive limits	Not applicable
Explosive properties	Fire or projection hazard.
Oxidising properties	No data available

9.2. Other information

Additional information	Not applicable Article

SECTION 10: Stability and reactivity

10.1. Reactivity

Fire or projection hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Risk of explosion by shock, friction, fire or other sources of ignition. Heating may cause an explosion. At high temperatures : > 150 °C Response.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides. Metal oxides. Thermal decomposition can lead to the release of irritating gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	Not classified (Based on available data, the classification criteria are not met)

glycerol trinitrate (55-63-0)	
LD50 oral	685 mg/kg
LD50 dermal rat	> 9560 mg/kg bodyweight (OECD 402 method)
ATE US (dust,mist)	0.05 mg/l/4h

lead styphnate (15245-44-0)	
LD50 oral rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 5.05 mg/l/4h (OECD 403 method)

barium nitrate (10022-31-8)	
LD50 oral	355 mg/kg
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h

diphenylamine (122-39-4)	
LD50 oral rat	> 800 mg/kg bodyweight
LD50 dermal	5000 mg/kg
ATE US (gases)	700 ppmv/4h
ATE US (vapours)	3 mg/l/4h
ATE US (dust,mist)	0.5 mg/l/4h

Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)

diphenylamine (122-39-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)

glycerol trinitrate (55-63-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

lead styphnate (15245-44-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

diphenylamine (122-39-4)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	Not applicable
Potential adverse human health effects and symptoms	No additional information available. No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released. The dismantling of the article is prohibited.
Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released. The dismantling of the article is prohibited.

12.2. Persistence and degradability

DX-Cartridge	
Persistence and degradability	Not established.

glycerol trinitrate (55-63-0)	
Not rapidly degradable	
Persistence and degradability	Inherently biodegradable.
Biodegradation	92.2 % (84 h)

lead styphnate (15245-44-0)
Not rapidly degradable

barium nitrate (10022-31-8)
Not rapidly degradable

copper (7440-50-8)
Not rapidly degradable

zinc (7440-66-6)	
Not rapidly degradable	
Persistence and degradability	Not applicable for inorganic products.

diphenylamine (122-39-4)	
Not rapidly degradable	
Persistence and degradability	Not readily biodegraded.
Biodegradation	26 % (28 d; (OECD 301D method))

tetrazene (109-27-3)
Not rapidly degradable

Iron (7439-89-6)
Not rapidly degradable

12.3. Bioaccumulative potential

DX-Cartridge	
Bioaccumulative potential	Not established.

glycerol trinitrate (55-63-0)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

lead styphnate (15245-44-0)	
BCF - Fish [1]	1.553
Partition coefficient n-octanol/water (Log Kow)	-2.19 (20 °C)

zinc (7440-66-6)	
Bioaccumulative potential	Bioaccumulation unlikely.

diphenylamine (122-39-4)	
Partition coefficient n-octanol/water (Log Kow)	3.82 (20,2 °C)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

12.4. Mobility in soil

glycerol trinitrate (55-63-0)	
Ecology - soil	Low potential for adsorption in soil.

diphenylamine (122-39-4)	
Surface tension	72.3 mN/m (20 °C; EU Method A.5)

12.5. Other adverse effects

Other adverse effects: No additional information available.

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Refer to manufacturer/supplier for information on recovery/recycling. At high temperatures may form : Response.
Additional information	Unused cartridges: Hazardous waste due to risk of explosion. European waste catalogue: 16 04 01* - waste ammunition. If possible use up the cartridges or store them for your next project. If cartridges are used up: European waste catalogue: 20 03 01 - mixed municipal waste . The product can be disposed of as household or factory waste.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 0323	UN 0323	UN 0323	UN 0323
14.2. UN proper shipping name			
CARTRIDGES, POWER DEVICE	CARTRIDGES, POWER DEVICE	Cartridges, power device	CARTRIDGES, POWER DEVICE
Transport document description			
UN 0323 CARTRIDGES, POWER DEVICE, 1.4S, (E)	UN 0323 CARTRIDGES, POWER DEVICE, 1.4S	UN 0323 Cartridges, power device, 1.4S	UN 0323 CARTRIDGES, POWER DEVICE, 1.4S
14.3. Transport hazard class(es)			
1.4S	1.4S	1.4S	1.4S
			
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	1.4S
Special provisions (ADR)	347
Limited quantities (ADR)	0
Excepted quantities (ADR)	E0
Packing instructions (ADR)	P134, LP102
Mixed packing provisions (ADR)	MP23
Transport category (ADR)	4
Special provisions for carriage - Loading, unloading and handling (ADR)	CV1, CV2, CV3
Special provisions for carriage - Operation (ADR)	S1

Tunnel restriction code (ADR)	E

Transport by sea

Special provisions (IMDG)	347
Limited quantities (IMDG)	0
Excepted quantities (IMDG)	E0
Packing instructions (IMDG)	P134, LP102
EmS-No. (Fire)	F-B
EmS-No. (Spillage)	S-X
Stowage category (IMDG)	01
Stowage and handling (IMDG)	SW1
Properties and observations (IMDG)	See glossary of terms in appendix B.
MFAG-No	114

Air transport

PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Forbidden
PCA limited quantity max net quantity (IATA)	Forbidden
PCA packing instructions (IATA)	134
PCA max net quantity (IATA)	25kg
CAO packing instructions (IATA)	134
CAO max net quantity (IATA)	100kg
Special provisions (IATA)	A165
ERG code (IATA)	3L

Rail transport

Classification code (RID)	1.4S
Special provisions (RID)	347
Limited quantities (RID)	0
Excepted quantities (RID)	E0
Packing instructions (RID)	P134, LP102
Mixed packing provisions (RID)	MP23
Transport category (RID)	4
Special provisions for carriage – Packages (RID)	W2
Special provisions for carriage - Loading, unloading and handling (RID)	CW1
Colis express (express parcels) (RID)	CE1
Hazard identification number (RID)	1.4S

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:		
Plastics (PP / PA / PC)	CAS-No.	15 – 40%
Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S		
zinc	CAS-No. 7440-66-6	0 – 2%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.		
glycerol trinitrate	CAS-No. 55-63-0	2 – 10%
copper	CAS-No. 7440-50-8	0 – 2%
zinc	CAS-No. 7440-66-6	0 – 2%
diphenylamine	CAS-No. 122-39-4	0.1 – 1%

glycerol trinitrate (55-63-0)	
CERCLA RQ	10 lb

copper (7440-50-8)	
CERCLA RQ	5000 lb

zinc (7440-66-6)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

cellulose nitrate (9004-70-0)
Listed on the Canadian DSL (Domestic Substances List)

glycerol trinitrate (55-63-0)
Listed on the Canadian DSL (Domestic Substances List)

lead styphnate (15245-44-0)
Listed on the Canadian DSL (Domestic Substances List)

barium nitrate (10022-31-8)
Listed on the Canadian DSL (Domestic Substances List)

copper (7440-50-8)
Listed on the Canadian DSL (Domestic Substances List)

zinc (7440-66-6)
Listed on the Canadian DSL (Domestic Substances List)

diphenylamine (122-39-4)
Listed on the Canadian DSL (Domestic Substances List)

tetrazene (109-27-3)
Listed on the Canadian NDSL (Non-Domestic Substances List)

Iron (7439-89-6)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

cellulose nitrate (9004-70-0)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

glycerol trinitrate (55-63-0)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

lead styphnate (15245-44-0)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

barium nitrate (10022-31-8)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

copper (7440-50-8)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

zinc (7440-66-6)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

diphenylamine (122-39-4)
Listed on IARC (International Agency for Research on Cancer) Listed on INSQ (Mexican National Inventory of Chemical Substances)

Iron (7439-89-6)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

DX-Cartridge	
U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes

DX-Cartridge	
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Yes

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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

Revision date 11/27/2023

Data sources Supplier Safety Data Sheet.

Full text of H-statements	
H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H204	Fire or projection hazard.
H272	May intensify fire; oxidiser.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms	
CAS-No.	Chemical Abstract Service number
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

Abbreviations and acronyms	
DNEL	Derived-No Effect Level
EC50	Median effective concentration
ED	Endocrine disrupting properties
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
N.O.S.	Not Otherwise Specified
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative
NOAEL	No-Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level

Indication of changes:			
General.			
Section	**Changed item**	**Change**	**Comments**
3	Composition/information on ingredients	Modified	

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

Henry

SAFETY DATA SHEET

Issue Date 24-Apr-2015 **Revision Date** 10-May-2015 **Version** 2

1. IDENTIFICATION

Product identifier

Product Name Henry 201 Fibered Black Roof Coating

Other means of identification

Product Code HE201
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Sealant.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address
HENRY COMPANY
999 N. Sepulveda Blvd., Suite 800
El Segundo, CA 90245-2716
Company Contact: Technical Services
Telephone Number: 800-486-1278
Web Site: www.henry.com www.ca.henry.com

Emergency telephone number

Emergency Telephone CHEMTREC: 800-424-9300
CHEMTREC: 703-527-3887
CANUTEC: 613-966-6666

2. HAZARDS IDENTIFICATION

Classification

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

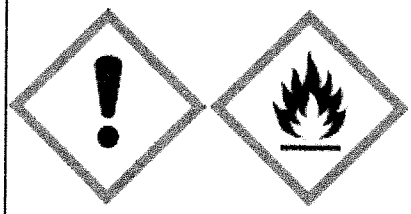
Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Not classified
Acute toxicity - Inhalation (Gases)	Not classified
Acute toxicity - Inhalation (Vapors)	Not classified
Acute toxicity - Inhalation (Dusts/Mists)	Not classified
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Respiratory sensitization	Not classified
Skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration toxicity	Not classified
Flammable liquids	Category 3

Label elements

Emergency Overview

Warning

Hazard statements
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Flammable liquid and vapor



Appearance paste **Physical state** liquid **Odor** Petroleum distillates

Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Wash face, hands and any exposed skin thoroughly after handling

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
IF INHALED: Call a POISON CENTER or doctor if you feel unwell
In case of fire: Use Water spray, fog or regular foam for extinction

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
Harmful to aquatic life with long lasting effects

Unknown acute toxicity 29.97% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
Petroleum Asphalt	8052-42-4	60-100	*
Stoddard solvent	8052-41-3	10 - 30	*
Perlite	93763-70-3	5-15	*
Cellulose	9004-34-6	1-5	*
1,2,4 Trimethylbenzene	95-63-6	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

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

Most important symptoms and effects, both acute and delayed

Symptoms Drowsiness.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

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

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Petroleum Asphalt 8052-42-4	TWA: 0.5 mg/m^3 benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m^3 fume 15 min
Stoddard solvent 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m^3 (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m^3	IDLH: 20000 mg/m^3 Ceiling: 1800 mg/m^3 15 min TWA: 350 mg/m^3
1,2,4 Trimethylbenzene 95-63-6	-	-	TWA: 25 ppm TWA: 125 mg/m^3

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

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

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance paste
Color black

Odor Petroleum distillates
Odor threshold No information available

Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	>= 150 °C	
Flash point	40 °C	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	

Flammability Limit in Air		
Upper flammability limit:	9%	
Lower flammability limit:	1%	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	0.9 - 1.3	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	>100 mm2/s	@ 40 °C
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
None under normal processing.
Conditions to avoid
Extremes of temperature and direct sunlight.
Incompatible materials
Strong oxidizing agents.
Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Irritating to eyes.

Skin contact Irritating to skin.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum Asphalt 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
1,2,4 Trimethylbenzene 95-63-6	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m^3 (Rat) 4 h

Information on toxicological effects

Symptoms Vapors may cause drowsiness and dizziness.

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

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Petroleum Asphalt 8052-42-4	-	Group 2B	-	X

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

ATEmix (oral)	5,602.00
ATEmix (dermal)	5,602.00
ATEmix (inhalation-gas)	99,999.00
ATEmix (inhalation-dust/mist)	14.01
ATEmix (inhalation-vapor)	99,999.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

49.4 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

Not readily biodegradable.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Petroleum Asphalt 8052-42-4	>6
1,2,4 Trimethylbenzene 95-63-6	3.63

Other adverse effects No information available
Ozone Not applicable

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT Not regulated (If shipped in NON BULK packaging by ground transport)

TDG Not regulated

IATA

UN/ID no.	UN1999
Proper shipping name	Tars, Liquid
Hazard Class	3
Packing Group	III

IMDG

UN/ID no.	UN1999
Proper shipping name	Tars, Liquid
Hazard Class	3
Packing Group	III
Description	May be transported as non-hazardous in accordance with IMDG 2.3.2.5

15. REGULATORY INFORMATION

All components used in this product are on the TSCA Inventory and the Canadian DSL.

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
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
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

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

SARA 311/312 Hazard Categories

Acute health hazard	Yes

Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

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

US State Regulations

California Proposition 65
This product contains chemicals known to the state of California to cause birth defects or other reproductive harm

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

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

NFPA	**Health hazards**	2	**Flammability**	2	**Instability**	0	**Physical and Chemical Properties** -
HMIS	**Health hazards**	2	**Flammability**	2	**Physical hazards**	0	**Personal protection** X

Issue Date 24-Apr-2015
Revision Date 10-May-2015
Revision Note
No information available

Disclaimer
The information provided in this Material 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

SAFE USE INSTRUCTION SHEET

Creation Date 16-Dec-1997 **Revision Date** 19-Mar-2021 **Version** 4

0. General Information

This Safe Use Instruction Sheet is the document provided by Owens Corning to communicate recommended safe handling and use instructions for manufactured articles neither regulated by OSHA Hazard Communication Standard, 29 CFR 1910.1200 nor by the Canada Hazardous Products Regulation SOR/2015-17 (WHMIS 2015)

1. IDENTIFICATION

Product Name Fiberglass Insulation Made With PureFiber® Technology Unfaced Products

Synonyms Acoustical Backing Board, Attic Door Insulator, Attic Hatch Insulator, Basement Blanket, R-13 Basement Finishing System™, Batts in Bags, Cathedral Batt Insulation, Cavity Wall, Certified R, EcoTouch®, Extended Flange 25, Flame Spread 25 Hi-Perm Residential/Commercial Insulation, Insulation Batts & Rolls, Insulation for Flexible Duct, Manufactured Housing Insulation, MBI Plus, Metal Building Insulation, Metal Building Utility Blanket, Metal Framing Batts, Metal Framing Insulation, NOISE Stop Blanket, PINK® Insulation, PROPINK® Fast Batt®, QuietZone® Acoustic Batt, Sonobatts®, Aislhogar, Aislacustic™, Deco SKY™, RA Series Insulation, UtiliCore® HP5, PINK Next Gen™ Fiberglas™ Insulation, PINK Next Gen™ Fiberglas™ Insulation

Product code OCIS00026

Recommended Use Insulation

Manufacturer Address Owens Corning Insulating Systems, LLC
One Owens Corning Parkway
Toledo, Ohio 43659

Company Phone Number 1-800-GET-PINK or 1-800-438-7465
E-mail address safetydatasheet@owenscorning.com
Company Website http://owenscorning.com/

2. HAZARDS IDENTIFICATION

Regulatory Status This product is considered an article. 29 CFR 1910.1200(c) definition of an article is as follows: "Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees

Manufactured articles which meet the definition of the Canadian Hazardous Products Act (any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product) are not regulated by the Canadian Hazardous Products Regulation SOR/2015-17

Other Information May cause temporary skin and mucous membranes itching due to the mechanical abrasion

effect of fibers

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is considered as an article. No hazardous components are included in this product.

4. FIRST AID MEASURES

Description of First Aid Measures

Eye contact

- DO NOT rub or scratch eyes
- Rinse thoroughly with plenty of water, also under the eyelids
- If symptoms persist, call a physician
- 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

- If skin irritation persists, call a physician
- Wash off immediately with plenty of water
- Wash off immediately with soap and plenty of cold water
- DO NOT use warm water because this will open up the pores of the skin, which will cause further penetration of fibers and dust
- Use a wash cloth to help remove fibers and dust
- DO NOT rub or scratch affected area
- Remove contaminated clothing and shoes
- If fibers are seen penetrating from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin
- Never use compressed air to remove fibers from skin

Inhalation

- Remove to fresh air
- If symptoms persist, call a physician

Ingestion

- Accidental ingestion of this product is unlikely
- Rinse mouth with water and drink water to remove fibers from the throat
- If this does occur watch person for several days to make sure intestinal blockage does not occur
- If symptoms persist, call a physician

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

- Avoid contact with eyes and skin

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
- Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and fiber contamination

- Avoid dry sweeping
- Pick up and transfer to properly labeled containers

7. HANDLING AND STORAGE

Precautions for safe handling
- Prevent and/or minimize dust formation
- Do not breathe dust
- Wear appropriate personal protective equipment in case of direct contact with the product

Storage Conditions
- Keep product in packaging until use to minimize potential dust generation
- Product should be kept dry and undercover

Incompatible materials
- None known based on information supplied

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH REL
Fiberglass wool 65997-17-3	TWA: 1 fiber/cm3 respirable fibers: length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m³ inhalable particulate matter	-	-

Engineering Controls

Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits
Dust collection system must be used in transferring operations, cutting or other dust generating processes, such as using power tools
Vacuum or wet clean-up methods should be used

Individual protection measures, such as personal protective equipment

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

Skin and body protection
- Wear protective gloves
- Wear long-sleeved shirt and long pants

Respiratory protection
- When workers are facing airborne particulates/dust concentrations above the exposure limits, they must use an appropriate certified respirator
- A properly fitted NIOSH approved disposable N 95 type dust respirator or better is recommended

General Hygiene Considerations
- Wash hands before breaks and immediately after handling products
- Remove and wash contaminated clothing before re-use

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Solid
Appearance Fibrous
Odor Organic
Color Pink
Water solubility Insoluble in water

10. STABILITY AND REACTIVITY

Possibility of Hazardous Reactions • None under normal processing conditions

Hazardous Decomposition Products • None known based on information supplied

11. TOXICOLOGICAL INFORMATION

Product Information Fiberglass wool may cause temporary skin and mucous membranes itching due to mechanical abrasion effect of fibers

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

IARC (International Agency for Research on Cancer) In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3,"not classifiable as to its carcinogenicity to humans". The 2001 decision was based on human studies and animal research that have not shown an association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease

NTP (National Toxicology Program) In June 2011, The National Toxicology Program (NTP) removed biosoluble glass wool fibers from its list of possible carcinogens used for home and building insulation

12. ECOLOGICAL INFORMATION

This product is not expected to be hazardous for the environment

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

This material is not subject to regulation as a hazardous material for shipping

15. REGULATORY INFORMATION

International Inventories This product is classified as an article. Articles are exempted from registration or listing under chemicals inventories like TSCA (USA), DSL/NDSL (CAN), REACH (EU), ENCS (JP), IECSC (CN), KECL (KR), PICCS (PH), AICS (AUS)

California Proposition 65 This product does not contain any Proposition 65 chemicals.

16. OTHER INFORMATION

Creation Date 16-Dec-1997
Revision Date 19-Mar-2021
Revision Note Sections updated 1, 3,

Disclaimer
Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use

End of Safe Use Instruction Sheet

Safety Data Sheet

Copyright,2024, 3M Company.
All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group:	09-5451-1	**Version Number:**	27.02
Issue Date:	02/13/24	**Supercedes Date:**	02/06/24

SECTION 1: Identification

1.1. Product identifier
3M Brand Fire Barrier CP-25WB+

Product Identification Numbers
70-0091-7202-7, 98-0400-5380-7, 98-0400-5381-5, 98-0400-5382-3, 98-0400-5383-1, 98-0400-5406-0, 98-0400-5456-5, 98-0400-5562-0, 98-0400-5573-7, 98-0400-5610-7, 98-0400-5629-7, 98-0441-1101-5
7100006311, 7000006379, 7000059394, 7000145569, 7100025518, 7000006383, 7010353050, 7100137423, 7100271914

1.2. Recommended use and restrictions on use

Recommended use
Fire Protection, Industrial use

1.3. Supplier's details

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

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Serious Eye Damage/Irritation: Category 1.
Skin Corrosion/Irritation: Category 2.
Skin Sensitizer: Category 1.
Reproductive Toxicity: Category 2.
Germ Cell Mutagenicity: Category 2.

2.2. Label elements
Signal word
Danger

Symbols
Corrosion | Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Causes serious eye damage.
Causes skin irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Suspected of causing genetic defects.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
Immediately call a POISON CENTER or doctor/physician.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
IF exposed or concerned: Get medical advice/attention.

Storage:
Store locked up.

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

2% of the mixture consists of ingredients of unknown acute oral toxicity.
2% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	10 - 30 Trade Secret *
Zinc Borate 2335	138265-88-0	10 - 30 Trade Secret *
Polymer (NJTS Reg. No. 04499600-7270)	Trade Secret*	10 - 30 Trade Secret *
Sodium Silicate	1344-09-8	10 - 19 Trade Secret *
Ethylhexyldiphenyl Phosphate	1241-94-7	3 - 7 Trade Secret *
Iron Oxide	1309-37-1	1 - 5 Trade Secret *
Polyethylene Glycol	25322-68-3	1 - 5 Trade Secret *

Oxide glass chemicals	Unknown	1 - 5 Trade Secret *
Di-2-ethylhexylphenyl Phosphate	16368-97-1	< 1 Trade Secret *
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts	68815-56-5	< 1 Trade Secret *
Quartz Silica	14808-60-7	< 1 Trade Secret *
Triphenyl Phosphate	115-86-6	< 1 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

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

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

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Oxides of Phosphorus	During Combustion

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Keep cool. Store away from heat. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Triphenyl Phosphate	115-86-6	ACGIH	TWA:3 mg/m3	A4: Not class. as human carcin
Triphenyl Phosphate	115-86-6	OSHA	TWA:3 mg/m3	
Iron Oxide	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	A4: Not class. as human carcin
Iron Oxide	1309-37-1	OSHA	TWA(as fume):10 mg/m3	
Quartz Silica	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Quartz Silica	14808-60-7	OSHA	TWA Table Z-1(respirable):0.05 mg/m3;TWA Table Z-3(respirable):0.1 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.)	
Polyethylene Glycol	25322-68-3	AIHA	TWA:10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Solid
Color	Red
Specific Physical Form:	Paste
Odor	Odorless
Odor threshold	*No Data Available*
pH	7.5 - 8
Melting point	*No Data Available*
Boiling Point	100 °C
Flash Point	No flash point
Evaporation rate	0.33 [*Ref Std:*BUOAC=1]

Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	17.5 mmHg [@ 20 °C]
Vapor Density	*No Data Available*
Density	*No Data Available*
Specific Gravity	1.35 [*Ref Std:*WATER=1]
Solubility in Water	Complete
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*Not Applicable*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Molecular weight	*No Data Available*
Volatile Organic Compounds	<=0.5 % weight [*Test Method:*tested per EPA method 24]
VOC Less H2O & Exempt Solvents	<=6 g/l [*Test Method:*tested per EPA method 24]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

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

Skin Contact:
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:
Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Silica, Crystalline (Respirable Size)	14808-60-7	Known To Be Human Carcinogen.	National Toxicology Program Carcinogens
Silica dust, crystalline, in the form of quartz or cristobalite	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Zinc Borate 2335	Dermal	Rabbit	LD50 > 5,000 mg/kg
Zinc Borate 2335	Inhalation-Dust/Mist	Rat	LC50 > 4.95 mg/l
Zinc Borate 2335	Ingestion	Rat	LD50 > 5,000 mg/kg
Polymer (NJTS Reg. No. 04499600-7270)	Dermal		LD50 estimated to be > 5,000 mg/kg
Polymer (NJTS Reg. No. 04499600-7270)	Ingestion	Rat	LD50 > 2,000 mg/kg
Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
Ethylhexyldiphenyl Phosphate	Dermal	Rabbit	LD50 > 7,940 mg/kg
Ethylhexyldiphenyl Phosphate	Ingestion	Rat	LD50 > 24,000 mg/kg
Iron Oxide	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide	Ingestion	Not available	LD50 3,700 mg/kg
Polyethylene Glycol	Dermal	Rabbit	LD50 > 20,000 mg/kg
Polyethylene Glycol	Ingestion	Rat	LD50 32,770 mg/kg
Di-2-ethylhexylphenyl Phosphate	Ingestion	Mouse	LD50 9,333 mg/kg
Triphenyl Phosphate	Dermal	Rabbit	LD50 > 10,000 mg/kg

Triphenyl Phosphate	Ingestion	Rat	LD50 > 20,000 mg/kg
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts	Ingestion	Mouse	LD50 > 540 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Zinc Borate 2335	Rabbit	No significant irritation
Polymer (NJTS Reg. No. 04499600-7270)	Rabbit	Minimal irritation
Sodium Silicate	Rabbit	Corrosive
Iron Oxide	Rabbit	No significant irritation
Polyethylene Glycol	Rabbit	Minimal irritation
Triphenyl Phosphate	Rabbit	No significant irritation
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts	In vitro data	Corrosive
Quartz Silica	Professional judgement	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Zinc Borate 2335	Rabbit	Severe irritant
Polymer (NJTS Reg. No. 04499600-7270)	Professional judgement	Mild irritant
Sodium Silicate	In vitro data	Corrosive
Iron Oxide	Rabbit	No significant irritation
Polyethylene Glycol	Rabbit	Mild irritant
Triphenyl Phosphate	Rabbit	Mild irritant
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts	In vitro data	Corrosive

Skin Sensitization

Name	Species	Value
Zinc Borate 2335	Guinea pig	Not classified
Sodium Silicate	Mouse	Not classified
Iron Oxide	Human	Not classified
Polyethylene Glycol	Guinea pig	Not classified
Triphenyl Phosphate	Human	Not classified
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts	In vitro data	Sensitizing

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
Zinc Borate 2335	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc Borate 2335	In vivo	Mutagenic
Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic

Iron Oxide	In Vitro	Not mutagenic
Polyethylene Glycol	In Vitro	Not mutagenic
Polyethylene Glycol	In vivo	Not mutagenic
Triphenyl Phosphate	In Vitro	Not mutagenic
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts	In Vitro	Not mutagenic
Quartz Silica	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Iron Oxide	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Polyethylene Glycol	Ingestion	Rat	Not carcinogenic
Quartz Silica	Inhalation	Human and animal	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Zinc Borate 2335	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	92 days
Zinc Borate 2335	Ingestion	Toxic to development	Rat	LOAEL 100 mg/kg/day	during gestation
Sodium Silicate	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
Polyethylene Glycol	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,125 mg/kg/day	during gestation
Polyethylene Glycol	Ingestion	Not classified for male reproduction	Rat	NOAEL 5699 +/- 1341 mg/kg/day	5 days
Polyethylene Glycol	Not Specified	Not classified for reproduction and/or development		NOEL N/A	
Polyethylene Glycol	Ingestion	Not classified for development	Mouse	NOAEL 562 mg/animal/day	during gestation
Triphenyl Phosphate	Ingestion	Not classified for female reproduction	Rat	NOAEL 690 mg/kg/day	premating & during gestation
Triphenyl Phosphate	Ingestion	Not classified for male reproduction	Rat	NOAEL 690 mg/kg/day	91 days
Triphenyl Phosphate	Ingestion	Toxic to development	Rat	NOAEL 77 mg/kg/day	I generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Zinc Borate 2335	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Polyethylene Glycol	Inhalation	respiratory irritation	Not classified	Rat	NOAEL 1.008 mg/l	2 weeks
Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for	similar health	NOAEL not available	

oxosulfopropyl)-omega-hydroxy-, C10-16-alkyl ethers, disodium salts			classification	hazards		

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Zinc Borate 2335	Inhalation	immune system | respiratory system | heart | endocrine system | hematopoietic system | liver | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	2 weeks
Zinc Borate 2335	Ingestion	endocrine system | liver | kidney and/or bladder | heart | skin | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | eyes | respiratory system | vascular system	Not classified	Rat	NOAEL 375 mg/kg/day	92 days
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium Silicate	Ingestion	endocrine system | blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart | liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Iron Oxide	Inhalation	pulmonary fibrosis | pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Polyethylene Glycol	Inhalation	respiratory system	Not classified	Rat	NOAEL 1.008 mg/l	2 weeks
Polyethylene Glycol	Ingestion	kidney and/or bladder | heart | endocrine system | hematopoietic system | liver | nervous system	Not classified	Rat	NOAEL 5,640 mg/kg/day	13 weeks
Triphenyl Phosphate	Dermal	endocrine system | hematopoietic system | liver | nervous system | kidney and/or bladder	Not classified	Rabbit	NOAEL 1,000 mg/kg/day	3 weeks
Triphenyl Phosphate	Ingestion	endocrine system | liver	Not classified	Rat	NOAEL 583 mg/kg/day	90 days
Triphenyl Phosphate	Ingestion	immune system	Not classified	Rat	NOAEL 700 mg/kg/day	120 days
Triphenyl Phosphate	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 583 mg/kg/day	90 days
Triphenyl Phosphate	Ingestion	nervous system	Not classified	Chicken	NOAEL 10,000 mg/kg/day	42 days
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

SECTION 12: Ecological information

Ecotoxicological information

Test Organism	Test Type	Result
Water flea, Daphnia magna	48 hours Aquatic Toxicity - Acute	27 mg/l
Green algae, Pseudokirchneriella subcapitata	72 hours Aquatic Toxicity - Chronic	2.6 mg/l

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards
Not applicable

Health Hazards
Germ cell mutagenicity
Reproductive toxicity
Respiratory or Skin Sensitization
Serious eye damage or eye irritation
Skin Corrosion or Irritation

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

Ingredient	C.A.S. No	% by Wt

Zinc Borate 2335 (ZINC COMPOUNDS)	138265-88-0	Trade Secret	10 - 30

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

Ingredient (Category if applicable)	C.A.S. No	Regulation	Status
Triphenyl Phosphate	115-86-6	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable
Triphenyl Phosphate	115-86-6	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Proposed

This material contains a chemical subject to a proposed EPA Significant New Use Rule (TSCA Section 5)

Ingredient (Category if applicable)	C.A.S. No	Reference
Triphenyl Phosphate	115-86-6	40 CFR 721.11778

15.2. State Regulations

15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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

15.4. International Regulations

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

SECTION 16: Other information

NFPA Hazard Classification
Health: 3 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

Document Group:	09-5451-1	**Version Number:**	27.02
Issue Date:	02/13/24	**Supercedes Date:**	02/06/24

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable

for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Copyright,2023, 3M Company.
All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group:	21-2441-0	**Version Number:**	12.02
Issue Date:	06/26/23	**Supercedes Date:**	01/06/23

SECTION 1: Identification

1.1. Product identifier
3M Fire Barrier Moldable Putty + Pads

1.2. Recommended use and restrictions on use

Recommended use
Passive fire protection in industrial applications

1.3. Supplier's details

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

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Serious Eye Damage/Irritation: Category 2A.
Reproductive Toxicity: Category 2.
Carcinogenicity: Category 2.
Germ Cell Mutagenicity: Category 2.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements
Signal word
Danger

Symbols
Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
Suspected of causing cancer.
Suspected of causing genetic defects.

Causes damage to organs through prolonged or repeated exposure:
kidney/urinary tract |

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.

Storage:
Store locked up.

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Zinc Borate 2335	138265-88-0	< 25 Trade Secret *
Methyl Esters of Hydrogenated Rosin	8050-15-5	10 - 20 Trade Secret *
Polyisobutylene	9003-27-4	10 - 20 Trade Secret *
Sodium Silicate	1344-09-8	< 20 Trade Secret *
Styrene-Butadiene Polymer	9003-55-8	10 - 20 Trade Secret *
Melamine Phosphate	41583-09-9	< 10 Trade Secret *
Oxide Glass Chemicals	65997-17-3	1 - 10 Trade Secret *
Butadiene-Styrene-Meta-Divinylbenzene Polymer	26471-45-4	1 - 5 Trade Secret *
Alpha-Methylstyrene-Isoamylene-Piperylene Polymer	62258-49-5	< 3 Trade Secret *
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	25036-25-3	< 3 Trade Secret *
Regenerated Cellulose	68442-85-3	< 3 Trade Secret *
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	< 3 Trade Secret *

Water	7732-18-5	< 3 Trade Secret *
Rayon Fiber	None	< 3 Trade Secret *
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	67701-06-8	< 2 Trade Secret *

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

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

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

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

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

Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
SILICA, AMORPHOUS	112945-52-5	OSHA	TWA:20 millions of particles/cu. ft.;TWA concentration:0.8 mg/m3	
Oxide Glass Chemicals	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m3;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m3	

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

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety Glasses with side shields
Indirect Vented Goggles

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

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Solid
Color	Red
Specific Physical Form:	Putty
Odor	Pine
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*Not Applicable*
Boiling Point	*Not Applicable*
Flash Point	No flash point
Evaporation rate	*Not Applicable*
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density	*Not Applicable*
Density	1.25 g/cm3
Specific Gravity	1.25 [*Ref Std:*WATER=1]
Solubility In Water	*No Data Available*
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*Not Applicable*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Volatile Organic Compounds	< 1 % weight
Percent volatile	*No Data Available*
VOC Less H2O & Exempt Solvents	< 1 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

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

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

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

Ingestion:
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:
Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Zinc Borate 2335	Dermal	Rabbit	LD50 > 5,000 mg/kg
Zinc Borate 2335	Inhalation-Dust/Mist	Rat	LC50 > 4.95 mg/l
Zinc Borate 2335	Ingestion	Rat	LD50 > 5,000 mg/kg
Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
Methyl Esters of Hydrogenated Rosin	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl Esters of Hydrogenated Rosin	Ingestion	Rat	LD50 > 2,000 mg/kg
Styrene-Butadiene Polymer	Dermal	Rabbit	LD50 > 2,000 mg/kg
Styrene-Butadiene Polymer	Ingestion	Rat	LD50 > 5,000 mg/kg
Polyisobutylene	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyisobutylene	Ingestion	Rat	LD50 > 2,000 mg/kg
Melamine Phosphate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Melamine Phosphate	Ingestion	Rat	LD50 > 2,000 mg/kg
Melamine Phosphate	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 5.19 mg/l
Oxide Glass Chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide Glass Chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Butadiene-Styrene-Meta-Divinylbenzene Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Butadiene-Styrene-Meta-Divinylbenzene Polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Synthetic amorphous silica, fumed, crystalline-free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic amorphous silica, fumed, crystalline-free	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic amorphous silica, fumed, crystalline-free	Ingestion	Rat	LD50 > 5,110 mg/kg
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Dermal	Rat	LD50 > 1,600 mg/kg
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Alpha-Methylstyrene-Isoamylene-Piperylene Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Alpha-Methylstyrene-Isoamylene-Piperylene Polymer	Ingestion	Rat	LD50 > 40,000 mg/kg
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	Ingestion	Rat	LD50 > 2,000 mg/kg
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	Dermal	similar compounds	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Zinc Borate 2335	Rabbit	No significant irritation
Sodium Silicate	Rabbit	Corrosive

Methyl Esters of Hydrogenated Rosin	similar compoun ds	No significant irritation
Styrene-Butadiene Polymer	Professio nal judgeme nt	No significant irritation
Polyisobutylene	Rabbit	No significant irritation
Melamine Phosphate	In vitro data	No significant irritation
Oxide Glass Chemicals	Professio nal judgeme nt	No significant irritation
Butadiene-Styrene-Meta-Divinylbenzene Polymer	Professio nal judgeme nt	Minimal irritation
Synthetic amorphous silica, fumed, crystalline-free	Rabbit	No significant irritation
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Rabbit	No significant irritation
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	similar compoun ds	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Zinc Borate 2335	Rabbit	Severe irritant
Sodium Silicate	Rabbit	Corrosive
Methyl Esters of Hydrogenated Rosin	Rabbit	No significant irritation
Polyisobutylene	Rabbit	No significant irritation
Melamine Phosphate	Rabbit	Mild irritant
Oxide Glass Chemicals	Professio nal judgeme nt	No significant irritation
Synthetic amorphous silica, fumed, crystalline-free	Rabbit	No significant irritation
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Rabbit	Mild irritant
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	similar compoun ds	Mild irritant

Skin Sensitization

Name	Species	Value
Zinc Borate 2335	Guinea pig	Not classified
Sodium Silicate	Mouse	Not classified
Methyl Esters of Hydrogenated Rosin	Guinea pig	Not classified
Melamine Phosphate	similar compoun ds	Not classified
Synthetic amorphous silica, fumed, crystalline-free	Human and animal	Not classified
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Guinea pig	Not classified
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	similar compoun ds	Not classified

Respiratory Sensitization

Name	Species	Value
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Zinc Borate 2335	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc Borate 2335	In vivo	Mutagenic
Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic
Methyl Esters of Hydrogenated Rosin	In Vitro	Not mutagenic
Melamine Phosphate	In Vitro	Not mutagenic
Oxide Glass Chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
Synthetic amorphous silica, fumed, crystalline-free	In Vitro	Not mutagenic
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	In vivo	Not mutagenic
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
FATTY ACIDS, C14-18 AND C16-18-UNSATD.	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Melamine Phosphate	Ingestion	similar compounds	Carcinogenic
Oxide Glass Chemicals	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Synthetic amorphous silica, fumed, crystalline-free	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Zinc Borate 2335	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	92 days
Zinc Borate 2335	Ingestion	Toxic to development	Rat	LOAEL 100 mg/kg/day	during gestation
Sodium Silicate	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
Methyl Esters of Hydrogenated Rosin	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,579 mg/kg/day	28 days
Methyl Esters of Hydrogenated Rosin	Ingestion	Not classified for female reproduction	Rat	NOAEL 915 mg/kg/day	premating into lactation
Methyl Esters of Hydrogenated Rosin	Ingestion	Not classified for development	Rat	NOAEL 915 mg/kg/day	premating into lactation
Melamine Phosphate	Ingestion	Toxic to male reproduction	similar compounds	NOAEL Not available	2 generation
Synthetic amorphous silica, fumed, crystalline-free	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic amorphous silica, fumed, crystalline-free	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic amorphous silica, fumed, crystalline-free	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Bisphenol A Diglycidyl Ether-Bisphenyl A	Dermal	Not classified for development	Rabbit	NOAEL 300	during

Copolymer				mg/kg/day	organogenesis
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Zinc Borate 2335	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Zinc Borate 2335	Inhalation	immune system | respiratory system | heart | endocrine system | hematopoietic system | liver | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	2 weeks
Zinc Borate 2335	Ingestion	endocrine system | liver | kidney and/or bladder | heart | skin | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | eyes | respiratory system | vascular system	Not classified	Rat	NOAEL 375 mg/kg/day	92 days
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium Silicate	Ingestion	endocrine system | blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart | liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Methyl Esters of Hydrogenated Rosin	Ingestion	endocrine system | liver | heart | skin | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 782 mg/kg/day	13 weeks
Melamine Phosphate	Ingestion	kidney and/or bladder	Causes damage to organs through prolonged or repeated exposure	similar compounds	NOAEL Not available	90 days
Oxide Glass Chemicals	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure

Synthetic amorphous silica, fumed, crystalline-free	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Bisphenol A Diglycidyl Ether-Bisphenyl A Copolymer	Ingestion	auditory system | heart | endocrine system | hematopoietic system | liver | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

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

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

SECTION 12: Ecological information

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards
Not applicable

Health Hazards
Carcinogenicity
Germ cell mutagenicity
Reproductive toxicity
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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

Ingredient	C.A.S. No	% by Wt
Zinc Borate 2335 (ZINC COMPOUNDS)	138265-88-0	Trade Secret < 25

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the new substance notification requirements of CEPA.

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

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

Document Group:	21-2441-0	**Version Number:**	12.02
Issue Date:	06/26/23	**Supercedes Date:**	01/06/23

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer

may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Copyright,2024, 3M Company.
All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group:	19-9776-6	**Version Number:**	9.00
Issue Date:	02/06/24	**Supercedes Date:**	11/15/22

SECTION 1: Identification

1.1. Product identifier
3M FireBarrier™ Sealant IC 15 WB+

Product Identification Numbers

ID Number	UPC	ID Number	UPC
42-0016-4768-6		42-0016-4769-4	
42-0016-4770-2		98-0400-5509-1	
98-0400-5510-9		98-0400-5511-7	
98-0400-5512-5		98-0400-5630-5	
98-0441-1100-7			

7100011413, 7000059404, 7000059405, 7010400883, 7100271403

1.2. Recommended use and restrictions on use

Recommended use
Fire Barrier Sealant.

1.3. Supplier's details

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

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1.
Reproductive Toxicity: Category 2.
Germ Cell Mutagenicity: Category 2.

2.2. Label elements
Signal word
Warning

Symbols
Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Suspected of causing genetic defects.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.

Storage:
Store locked up.

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Calcium Carbonate	1317-65-3	30 - 60 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Polymer NJTS Reg. No. 04499600-7314	Trade Secret*	10 - 30 Trade Secret *
Sodium Silicate	1344-09-8	3 - 7 Trade Secret *
Zinc Borate 2335	138265-88-0	3 - 7 Trade Secret *
Polyether Polyol	68815-56-5	< 1 Trade Secret *
2-Aminoisobutanol	124-68-5	< 0.5 Trade Secret *

Quartz Silica	14808-60-7	< 0.5 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

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

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

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

Allergic skin reaction (redness, swelling, blistering, and itching).

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Calcium Carbonate	1317-65-3	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	1317-65-3	ACGIH	TWA(inhalable particulates):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles	1317-65-3	ACGIH	TWA(respirable particles):3 mg/m3	
Quartz Silica	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Quartz Silica	14808-60-7	OSHA	TWA Table Z-1(respirable):0.05 mg/m3;TWA Table Z-3(respirable):0.1 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.)	

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

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety Glasses with side shields
Indirect Vented Goggles

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Solid
Color	Light Yellow
Specific Physical Form:	Paste
Odor	Mild Odor
Odor threshold	*No Data Available*
pH	8 - 9
Melting point	*No Data Available*
Boiling Point	*Not Applicable*
Flash Point	Flash point > 93 °C (200 °F)
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*No Data Available*
Vapor Density	*No Data Available*
Density	1.4 g/cm3
Specific Gravity	1.4 [*Ref Std:*WATER=1]

Solubility in Water	Moderate
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Molecular weight	*No Data Available*
Volatile Organic Compounds	<=20 % weight [*Test Method:*tested per EPA method 24]
VOC Less H2O & Exempt Solvents	<=4 g/l [*Test Method:*tested per EPA method 24]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

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

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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

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

May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:
Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Silica, Crystalline (Respirable Size)	14808-60-7	Known To Be Human Carcinogen.	National Toxicology Program Carcinogens
Silica dust, crystalline, in the form of quartz or cristobalite	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Polymer NJTS Reg. No. 04499600-7314	Dermal		LD50 estimated to be > 5,000 mg/kg
Polymer NJTS Reg. No. 04499600-7314	Ingestion	Rat	LD50 > 2,000 mg/kg
Zinc Borate 2335	Dermal	Rabbit	LD50 > 5,000 mg/kg
Zinc Borate 2335	Inhalation-Dust/Mist	Rat	LC50 > 4.95 mg/l
Zinc Borate 2335	Ingestion	Rat	LD50 > 5,000 mg/kg
Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
2-Aminoisobutanol	Dermal	Rabbit	LD50 > 2,000 mg/kg
2-Aminoisobutanol	Ingestion	Rat	LD50 2,900 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg
Polyether Polyol	Ingestion	Mouse	LD50 > 540 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Polymer NJTS Reg. No. 04499600-7314	Rabbit	Minimal irritation
Zinc Borate 2335	Rabbit	No significant irritation
Sodium Silicate	Rabbit	Corrosive
2-Aminoisobutanol	Rabbit	Irritant

Quartz Silica	Professional judgement	No significant irritation
Polyether Polyol	In vitro data	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Polymer NJTS Reg. No. 04499600-7314	Professional judgement	Mild irritant
Zinc Borate 2335	Rabbit	Severe irritant
Sodium Silicate	In vitro data	Corrosive
2-Aminoisobutanol	Rabbit	Corrosive
Polyether Polyol	In vitro data	Corrosive

Skin Sensitization

Name	Species	Value
Zinc Borate 2335	Guinea pig	Not classified
Sodium Silicate	Mouse	Not classified
2-Aminoisobutanol	Guinea pig	Not classified
Polyether Polyol	In vitro data	Sensitizing

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
Zinc Borate 2335	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc Borate 2335	In vivo	Mutagenic
Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic
2-Aminoisobutanol	In Vitro	Not mutagenic
2-Aminoisobutanol	In vivo	Not mutagenic
Quartz Silica	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	In vivo	Some positive data exist, but the data are not sufficient for classification
Polyether Polyol	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Quartz Silica	Inhalation	Human and animal	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration

Calcium Carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Zinc Borate 2335	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	92 days
Zinc Borate 2335	Ingestion	Toxic to development	Rat	LOAEL 100 mg/kg/day	during gestation
Sodium Silicate	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
2-Aminoisobutanol	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
2-Aminoisobutanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	37 days
2-Aminoisobutanol	Dermal	Not classified for development	Rat	NOAEL 300 mg/kg/day	during gestation
2-Aminoisobutanol	Ingestion	Toxic to development	Rat	NOAEL 100 mg/kg/day	premating into lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
Zinc Borate 2335	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
2-Aminoisobutanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	
Polyether Polyol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Zinc Borate 2335	Inhalation	immune system | respiratory system | heart | endocrine system | hematopoietic system | liver | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	2 weeks
Zinc Borate 2335	Ingestion	endocrine system | liver | kidney and/or bladder | heart | skin | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | eyes | respiratory system | vascular system	Not classified	Rat	NOAEL 375 mg/kg/day	92 days
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks

Sodium Silicate	Ingestion	endocrine system | blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart | liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
2-Aminoisobutanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 23 mg/kg/day	90 days
2-Aminoisobutanol	Ingestion	blood | eyes | kidney and/or bladder	Not classified	Dog	NOAEL 2.8 mg/kg/day	1 years
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

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

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

SECTION 12: Ecological information

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards
Germ cell mutagenicity
Reproductive toxicity
Respiratory or Skin Sensitization
Serious eye damage or eye irritation

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

Ingredient	C.A.S. No	% by Wt
Zinc Borate 2335 (ZINC COMPOUNDS)	138265-88-0	Trade Secret 3 - 7

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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

This product complies with the New Zealand Hazardous Substances and New Organisms Act (1996).

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

Document Group:	19-9776-6	**Version Number:**	9.00
Issue Date:	02/06/24	**Supercedes Date:**	11/15/22

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL38

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements of the Global Harmonizing System.
THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: FIREFIGHTER GL38
PRODUCT USES: Chemical Processing

COMPANY IDENTITY: Noble Company
COMPANY ADDRESS: 7300 Enterprise Dr.
COMPANY CITY: Spring Lake, MI 49456
COMPANY PHONE: 1-231-799-8000
EMERGENCY PHONE: 1-231-799-8000

SECTION 2. HAZARDS IDENTIFICATION

CAUTION

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
This product does not meet the Global Harmonizing System criteria for classification.
Hazard(s) not otherwise classified: Not Classified.
GHS PICTOGRAMS: Not Applicable
GHS SIGNAL WORD: Not Applicable
GHS HAZARD STATEMENTS: Not Applicable
GHS PRECAUTIONARY STATEMENTS: Not Applicable

2.2 PRECAUTIONARY STATEMENTS:
PREVENTION: Observe good industrial hygiene practices. Isolate from extreme heat & flame.
RESPONSE: Wash hands after handling.
STORAGE: Store away from incompatible materials.
DISPOSAL: Dispose of waste and residues in accordance with local authority requirements.

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Water	7732-18-5	231-791-2	61-63
Glycerol	56-81-5	-	36-38
Dye	Confidential	-	0- 1

The specific chemical component identities and/or the exact component percentages of this material may be withheld as a trade secret. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1).

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL38

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 4. FIRST AID MEASURES

4.1 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE & CHRONIC:
See Section 11 for Symptoms/Effects (acute & chronic).

4.2 EYE CONTACT:
For eyes, flush with plenty of water for 15 minutes & get medical attention.

4.3 SKIN CONTACT:
In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

4.4 INHALATION:
After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

4.5 SWALLOWING:
Rinse mouth. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.

SECTION 5. FIRE FIGHTING MEASURES

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:
NO open flames.

5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:
Use dry powder, alcohol-resistant foam, water spray, carbon dioxide.

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:
Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:
SLIGHTLY COMBUSTIBLE!
Isolate from oxidizers, heat, & open flame.
Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.
Continue all label precautions!

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES:
Keep unprotected personnel away.
Wear appropriate personal protective equipment given in Section 8.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep from entering storm sewers and ditches which lead to waterways.

6.3 METHODS & MATERIAL FOR CONTAINMENT & CLEAN-UP:
Stop spill at source. Dike and contain. Collect leaking liquid in sealable containers.
Absorb remaining liquid in sand or inert absorbent. Remove to safe place.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:
Isolate from oxidizers, heat, & open flame. Use only with adequate ventilation.
Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.
Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze, or weld. Continue all label precautions!

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Keep separated from strong oxidants. Do not store above 49 C/120 F.
Keep container tightly closed & upright when not in use to prevent leakage.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL38

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE LIMITS:

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	231-791-2	None Known	None Known
Glycerol	56-81-5	-	None Known	None Known
Dye	Confidential	-	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

8.2 APPROPRIATE ENGINEERING CONTROLS:

RESPIRATORY EXPOSURE CONTROLS
A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION
LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Acceptable
SPECIAL: None OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

PERSONAL PROTECTIONS:
Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:
Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet.
Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Liquid, Orange
ODOR:	Characteristic
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Available
MELTING POINT/FREEZING POINT:	+18 C / +64 F (solidifies at much lower temp)
BOILING RANGE (IBP,50%,Dry Point):	100 100 290* C / 212 212 554* F (*=End Point)
FLASH POINT (TEST METHOD):	177 C / 352 F (COC)
EVAPORATION RATE (n-Butyl Acetate=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class III-B
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	10.0 (Lowest Component)
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	17.5
VAPOR DENSITY (air=1):	0.670
GRAVITY @ 68/68 F / 20/20 C:	
DENSITY:	1.102
SPECIFIC GRAVITY (Water=1):	1.105
POUNDS/GALLON:	9.205
WATER SOLUBILITY:	Appreciable
PARTITION COEFFICIENT (n-Octane/Water):	-2.6 (calculated)
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available
TOTAL VOC'S (TVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	0.0
VISCOSITY @ 20 C (ASTM D445):	4.4 mPa.s

* Using CARB (California Air Resources Board Rules).

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL38

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 10. STABILITY & REACTIVITY

10.1 REACTIVITY & CHEMICAL STABILITY:
Stable under normal conditions, no hazardous reactions when kept from incompatibles.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS & CONDITIONS TO AVOID:
Isolate from oxidizers, heat, & open flame.

10.3 INCOMPATIBLE MATERIALS:
The substance decomposes on extreme heating producing fumes of acrolein.
The substance can readily react with strong oxidants, causing fire & explosion hazard.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Oxides, acrolein from burning.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Not irritating to skin. May be irritating to eyes. Wash thoroughly after handling.

11.12 INHALATION:
Not likely to cause irritation at ambient temperatures. Mist can cause irritation.

11.13 SWALLOWING:
Unlikely to be harmful unless excessive amount is swallowed.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Pre-existing disorders of any target organs mentioned in this Document can be aggravated by over-exposure by routes of entry to components of this product. Persons with these disorders should avoid use of this product.

11.3 CHRONIC HAZARDS

11.31 CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:
This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

11.32 TARGET ORGANS: May cause damage to target organs, based on animal data.

11.33 IRRITANCY: Irritating to contaminated tissue.

11.34 SENSITIZATION: No component is known as a sensitizer.

11.35 MUTAGENICITY: No known reports of mutagenic effects in humans.

11.36 EMBRYOTOXICITY: No known reports of embryotoxic effects in humans.

11.37 TERATOGENICITY: No known reports of teratogenic effects in humans.

11.38 REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A MUTAGEN is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate across generational lines. An EMBRYOTOXIN is a chemical which causes damage to a developing embryo (such as: within the first 8 weeks of pregnancy in humans), but the damage does not propagate across generational lines. A TERATOGEN is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A REPRODUCTIVE TOXIN is any substance which interferes in any way with the reproductive process.

11.4 MAMMALIAN TOXICITY INFORMATION

LD50 (Oral):	> 2000 mg/kg (Rat)

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL38

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 12. ECOLOGICAL INFORMATION

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS:
This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE:
LC50 / 96 hours: >5000 mg/L (Fish)
EC50 / 24 hours: >10000 mg/L (Daphnia magna)
EC50 / 16 hours: >10000 mg/L (Pseudomonas putida)

12.4 MOBILITY IN SOIL
Mobility of this material has not been determined.

12.5 DEGRADABILITY
This product is completely biodegradable.
BOD5/COD: 0.87/1.16 (gO_2/g)

12.6 ACCUMULATION
Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.
ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.

SECTION 14. TRANSPORT INFORMATION

MARINE POLLUTANT: No
DOT/TDG SHIP NAME: Not Regulated
DRUM LABEL: None
IATA / ICAO: Not Regulated
IMO / IMDG: Not Regulated
EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

SECTION 15. REGULATORY INFORMATION

15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: None Known

All components of this product are on the TSCA list.
This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

15.2 STATE REGULATIONS:
THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 & SIMILAR REGULATIONS

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

15.3 INTERNATIONAL REGULATIONS
The identified components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)
D2B: Irritating to skin / eyes.

This product was classified using the hazard criteria of the Controlled Products Regulations (CPR). This Document contains all information required by the CPR.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL38

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 16. OTHER INFORMATION

16.1 HAZARD RATINGS:
HEALTH (NFPA): 1, HEALTH (HMIS): 1, FLAMMABILITY: 1, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

16.2 EMPLOYEE TRAINING
See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS DATE: 01/21/2015

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.
Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.
This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Unless updated, the Safety Data Sheet is valid until 01/21/2018.
Safety Data Sheet was prepared by: Chemical Data Services, e-mail: chemdatsrv@aol.com.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL48

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements of the Global Harmonizing System.
THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: FIREFIGHTER GL48
PRODUCT USES: Chemical Processing

COMPANY IDENTITY: Noble Company
COMPANY ADDRESS: 7300 Enterprise Dr.
COMPANY CITY: Spring Lake, MI 49456
COMPANY PHONE: 1-231-799-8000
EMERGENCY PHONE: 1-231-799-8000

SECTION 2. HAZARDS IDENTIFICATION

CAUTION

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
This product does not meet the Global Harmonizing System criteria for classification.
Hazard(s) not otherwise classified: Not Classified.
GHS PICTOGRAMS: Not Applicable
GHS SIGNAL WORD: Not Applicable
GHS HAZARD STATEMENTS: Not Applicable
GHS PRECAUTIONARY STATEMENTS: Not Applicable

2.2 PRECAUTIONARY STATEMENTS:
PREVENTION: Observe good industrial hygiene practices. Isolate from extreme heat & flame.
RESPONSE: Wash hands after handling.
STORAGE: Store away from incompatible materials.
DISPOSAL: Dispose of waste and residues in accordance with local authority requirements.

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Water	7732-18-5	231-791-2	51-53
Glycerol	56-81-5	-	46-48
Dye	Confidential	-	0- 1

The specific chemical component identities and/or the exact component percentages of this material may be withheld as a trade secret. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1).

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL48

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 4. FIRST AID MEASURES

4.1 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE & CHRONIC:
See Section 11 for Symptoms/Effects (acute & chronic).

4.2 EYE CONTACT:
For eyes, flush with plenty of water for 15 minutes & get medical attention.

4.3 SKIN CONTACT:
In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

4.4 INHALATION:
After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

4.5 SWALLOWING:
Rinse mouth. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.

SECTION 5. FIRE FIGHTING MEASURES

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:
NO open flames.

5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:
Use dry powder, alcohol-resistant foam, water spray, carbon dioxide.

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:
Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:
SLIGHTLY COMBUSTIBLE!
Isolate from oxidizers, heat, & open flame.
Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.
Continue all label precautions!

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES:
Keep unprotected personnel away.
Wear appropriate personal protective equipment given in Section 8.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep from entering storm sewers and ditches which lead to waterways.

6.3 METHODS & MATERIAL FOR CONTAINMENT & CLEAN-UP:
Stop spill at source. Dike and contain. Collect leaking liquid in sealable containers.
Absorb remaining liquid in sand or inert absorbent. Remove to safe place.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:
Isolate from oxidizers, heat, & open flame. Use only with adequate ventilation.
Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.
Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze, or weld. Continue all label precautions!

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Keep separated from strong oxidants. Do not store above 49 C/120 F.
Keep container tightly closed & upright when not in use to prevent leakage.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL48

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE LIMITS:

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	231-791-2	None Known	None Known
Glycerol	56-81-5	-	None Known	None Known
Dye	Confidential	-	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

8.2 APPROPRIATE ENGINEERING CONTROLS:

RESPIRATORY EXPOSURE CONTROLS
A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION
LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Acceptable
SPECIAL: None OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

PERSONAL PROTECTIONS:
Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:
Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet.
Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Liquid, Orange
ODOR:	Characteristic
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Available
MELTING POINT/FREEZING POINT:	+18 C / +64 F (solidifies at much lower temp)
BOILING RANGE (IBP,50%,Dry Point):	100 100 290* C / 212 212 554* F (*=End Point)
FLASH POINT (TEST METHOD):	177 C / 352 F (COC)
EVAPORATION RATE (n-Butyl Acetate=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class III-B
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	10.0 (Lowest Component)
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	17.5
VAPOR DENSITY (air=1):	0.670
GRAVITY @ 68/68 F / 20/20 C:	
DENSITY:	1.125
SPECIFIC GRAVITY (Water=1):	1.131
POUNDS/GALLON:	9.421
WATER SOLUBILITY:	Appreciable
PARTITION COEFFICIENT (n-Octane/Water):	-2.6 (calculated)
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available
TOTAL VOC'S (TVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	0.0
VISCOSITY @ 20 C (ASTM D445):	4.4 mPa.s

* Using CARB (California Air Resources Board Rules).

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL48

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 10. STABILITY & REACTIVITY

10.1 REACTIVITY & CHEMICAL STABILITY:
Stable under normal conditions, no hazardous reactions when kept from incompatibles.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS & CONDITIONS TO AVOID:
Isolate from oxidizers, heat, & open flame.

10.3 INCOMPATIBLE MATERIALS:
The substance decomposes on extreme heating producing fumes of acrolein.
The substance can readily react with strong oxidants, causing fire & explosion hazard.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Oxides, acrolein from burning.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Not irritating to skin. May be irritating to eyes. Wash thoroughly after handling.

11.12 INHALATION:
Not likely to cause irritation at ambient temperatures. Mist can cause irritation.

11.13 SWALLOWING:
Unlikely to be harmful unless excessive amount is swallowed.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Pre-existing disorders of any target organs mentioned in this Document can be aggravated by over-exposure by routes of entry to components of this product. Persons with these disorders should avoid use of this product.

11.3 CHRONIC HAZARDS

11.31 CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:
This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

11.32 TARGET ORGANS: May cause damage to target organs, based on animal data.

11.33 IRRITANCY: Irritating to contaminated tissue.

11.34 SENSITIZATION: No component is known as a sensitizer.

11.35 MUTAGENICITY: No known reports of mutagenic effects in humans.

11.36 EMBRYOTOXICITY: No known reports of embryotoxic effects in humans.

11.37 TERATOGENICITY: No known reports of teratogenic effects in humans.

11.38 REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A MUTAGEN is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate across generational lines. An EMBRYOTOXIN is a chemical which causes damage to a developing embryo (such as: within the first 8 weeks of pregnancy in humans), but the damage does not propagate across generational lines. A TERATOGEN is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A REPRODUCTIVE TOXIN is any substance which interferes in any way with the reproductive process.

11.4 MAMMALIAN TOXICITY INFORMATION

LD50 (Oral): > 2000 mg/kg (Rat)

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL48

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 12. ECOLOGICAL INFORMATION

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS:
This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE:

LC50 / 96 hours:	>5000 mg/L (Fish)
EC50 / 24 hours:	>10000 mg/L (Daphnia magna)
EC50 / 16 hours:	>10000 mg/L (Pseudomonas putida)

12.4 MOBILITY IN SOIL
Mobility of this material has not been determined.

12.5 DEGRADABILITY
This product is completely biodegradable.
BOD5/COD: 0.87/1.16 (gO_2/g)

12.6 ACCUMULATION
Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.
ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.

SECTION 14. TRANSPORT INFORMATION

MARINE POLLUTANT: No
DOT/TDG SHIP NAME: Not Regulated
DRUM LABEL: None
IATA / ICAO: Not Regulated
IMO / IMDG: Not Regulated
EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

SECTION 15. REGULATORY INFORMATION

15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: None Known

All components of this product are on the TSCA list.
This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

15.2 STATE REGULATIONS:
THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 & SIMILAR REGULATIONS

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

15.3 INTERNATIONAL REGULATIONS
The identified components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)
D2B: Irritating to skin / eyes.

This product was classified using the hazard criteria of the Controlled Products Regulations (CPR). This Document contains all information required by the CPR.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER GL48

SDS DATE: 01/21/2015
ORIGINAL: 01/21/2015

SECTION 16. OTHER INFORMATION

16.1 HAZARD RATINGS:
HEALTH (NFPA): 1, HEALTH (HMIS): 1, FLAMMABILITY: 1, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

16.2 EMPLOYEE TRAINING
See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS DATE: 01/21/2015

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.
Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.
This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Unless updated, the Safety Data Sheet is valid until 01/21/2018.
Safety Data Sheet was prepared by: Chemical Data Services, e-mail: chemdatsrv@aol.com.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER PG38

SDS DATE: 05/07/2015
ORIGINAL: 02/14/2015

SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements of the Global Harmonizing System.
THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: FIREFIGHTER PG38
PRODUCT USES: Freeze Protection

COMPANY IDENTITY: Noble Company
COMPANY ADDRESS: 7300 Enterprise Dr.
COMPANY CITY: Spring Lake, MI 49456
COMPANY PHONE: 1-231-799-8000
EMERGENCY PHONES: 1-800-878-5788

SECTION 2. HAZARDS IDENTIFICATION

CAUTION

2.1 HAZARD STATEMENTS: (CAT = Hazard Category)
This product does not meet the Global Harmonizing System criteria for classification.
Hazard(s) not otherwise classified: Not Classified.
GHS PICTOGRAMS: Not Applicable
GHS SIGNAL WORD: Not Applicable
GHS HAZARD STATEMENTS: Not Applicable
GHS PRECAUTIONARY STATEMENTS: Not Applicable

2.2 PRECAUTIONARY STATEMENTS:
PREVENTION: Observe good industrial hygiene practices. Isolate from extreme heat & flame.
RESPONSE: Wash hands after handling.
STORAGE: Store away from incompatible materials.
DISPOSAL: Dispose of waste and residues in accordance with local authority requirements.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Water	7732-18-5	231-791-2	50-60
Propylene Glycol	57-55-6	200-338-0	30-40
Dipotassium Phosphate	7758-11-4	-	0-10
Dye	25956-17-6	-	0- 1

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1).

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER PG38

SDS DATE: 05/07/2015
ORIGINAL: 02/14/2015

SECTION 4. FIRST AID MEASURES

4.1 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE & CHRONIC:
See Section 11 for Symptoms/Effects (acute & chronic).

4.2 EYE CONTACT:
For eyes, flush with plenty of water for 15 minutes & get medical attention.

4.3 SKIN CONTACT:
In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

4.4 INHALATION:
After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

4.5 SWALLOWING:
Rinse mouth. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.

SECTION 5. FIRE FIGHTING MEASURES

5.1 FIRE & EXPLOSION PREVENTIVE MEASURES:
NO open flames. Above flash point, use a closed system, ventilation,

5.2 SUITABLE (& UNSUITABLE) EXTINGUISHING MEDIA:
Use dry powder, alcohol-resistant foam, water spray, carbon dioxide.

5.3 SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS FOR FIRE FIGHTERS:
Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).

5.4 SPECIFIC HAZARDS OF CHEMICAL & HAZARDOUS COMBUSTION PRODUCTS:
SLIGHTLY COMBUSTIBLE!
Isolate from oxidizers, heat, & open flame.
Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.
Continue all label precautions!

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES:
Keep unprotected personnel away.
Wear appropriate personal protective equipment given in Section 8.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep from entering storm sewers and ditches which lead to waterways.

6.3 METHODS & MATERIAL FOR CONTAINMENT & CLEAN-UP:
Stop spill at source. Dike and contain.
Wash away remainder with plenty of water.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:
Isolate from oxidizers, heat, & open flame. Use only with adequate ventilation. Avoid prolonged or repeated contact with skin. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze, or weld. Continue all label precautions!

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Keep separated from strong oxidants. Keep dry. Use ventilation along the floor.
Do not store above 49 C/120 F.
Keep container tightly closed & upright when not in use to prevent leakage.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER PG38

SDS DATE: 05/07/2015
ORIGINAL: 02/14/2015

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE LIMITS:

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	231-791-2	None Known	None Known
Propylene Glycol	57-55-6	200-338-0	None Known	1000 ppm
Dipotassium Phosphate	7758-11-4	-	None Known	None Known
Dye	25956-17-6	-	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

8.2 APPROPRIATE ENGINEERING CONTROLS:

RESPIRATORY EXPOSURE CONTROLS
A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION
LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Acceptable
SPECIAL: None OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

PERSONAL PROTECTIONS:
Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:
Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet.
Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Liquid, Red
ODOR:	None
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Available
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP,50%,Dry Point):	111 137 187* C / 232 279 369* F (*=End Point)
FLASH POINT (TEST METHOD):	107 C / 225 F (TCC) (Lowest Component
EVAPORATION RATE (n-Butyl Acetate=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class IIIB
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	2.6 (Lowest Component)
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	15.1
VAPOR DENSITY (air=1):	0.948
GRAVITY @ 68/68 F / 20/20 C:	
DENSITY:	1.022
SPECIFIC GRAVITY (Water=1):	1.024
POUNDS/GALLON:	8.530
WATER SOLUBILITY:	Appreciable
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	421 C / 790 F
DECOMPOSITION TEMPERATURE:	Not Available
TOTAL VOC'S (TVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	0.0
VISCOSITY @ 20 C (ASTM D445):	Not Available

* Using CARB (California Air Resources Board Rules).

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER PG38

SDS DATE: 05/07/2015
ORIGINAL: 02/14/2015

SECTION 10. STABILITY & REACTIVITY

10.1 REACTIVITY & CHEMICAL STABILITY:
Stable under normal conditions, no hazardous reactions when kept from incompatibles.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS & CONDITIONS TO AVOID:
Isolate from oxidizers, heat, & open flame.

10.3 INCOMPATIBLE MATERIALS:
Reacts with strong oxidants, causing fire & explosion hazard.

10.4 HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide, Carbon Dioxide, Potassium Oxide & Hydroxide from burning.

10.5 HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 ACUTE HAZARDS

11.11 EYE & SKIN CONTACT:
Primary irritation to skin, defatting, dermatitis.
Primary irritation to eyes, redness, tearing, blurred vision.
Liquid can cause eye irritation. Wash thoroughly after handling.

11.12 INHALATION:
Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful.

11.13 SWALLOWING:
Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

11.2 SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Pre-existing disorders of any target organs mentioned in this Document can be aggravated by over-exposure by routes of entry to components of this product. Persons with these disorders should avoid use of this product.

11.3 CHRONIC HAZARDS

11.31 CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:
This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

11.32 TARGET ORGANS: May cause damage to target organs, based on animal data.

11.33 IRRITANCY: Irritating to contaminated tissue.

11.34 SENSITIZATION: No component is known as a sensitizer.

11.35 MUTAGENICITY: No known reports of mutagenic effects in humans.

11.36 EMBRYOTOXICITY: No known reports of embryotoxic effects in humans.

11.37 TERATOGENICITY: No known reports of teratogenic effects in humans.

11.38 REPRODUCTIVE TOXICITY: No known reports of reproductive effects in humans.

A MUTAGEN is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate across generational lines. An EMBRYOTOXIN is a chemical which causes damage to a developing embryo (such as: within the first 8 weeks of pregnancy in humans), but the damage does not propagate across generational lines. A TERATOGEN is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A REPRODUCTIVE TOXIN is any substance which interferes in any way with the reproductive process.

11.4 MAMMALIAN TOXICITY INFORMATION

MATERIAL	CAS#	EINECS#	LOWEST KNOWN LETHAL DOSE DATA LOWEST KNOWN LD50 (ORAL)
Propylene Glycol	57-55-6	200-338-0	18300.0 mg/kg(Guinea Pigs)

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER PG38

SDS DATE: 05/07/2015
ORIGINAL: 02/14/2015

SECTION 12. ECOLOGICAL INFORMATION

12.1 ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.2 EFFECT OF MATERIAL ON PLANTS AND ANIMALS:
This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

12.3 EFFECT OF MATERIAL ON AQUATIC LIFE:
No aquatic environmental information is available on this product.

12.4 MOBILITY IN SOIL
This material is a mobile liquid.

12.5 DEGRADABILITY
This product is partially biodegradable.

12.6 ACCUMULATION
Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.
ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.

SECTION 14. TRANSPORT INFORMATION

MARINE POLLUTANT: No
DOT/TDG SHIP NAME: Not Regulated
DRUM LABEL: None
IATA / ICAO: Not Regulated
IMO / IMDG: Not Regulated
EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

SECTION 15. REGULATORY INFORMATION

15.1 EPA REGULATION:
SARA SECTION 311/312 HAZARDS: None Known

All components of this product are on the TSCA list.
This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

15.2 STATE REGULATIONS:
THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 & SIMILAR REGULATIONS
CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

15.3 INTERNATIONAL REGULATIONS
The identified components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

15.4 CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)
D2B: Irritating to skin / eyes.

This product was classified using the hazard criteria of the Controlled Products Regulations (CPR). This Document contains all information required by the CPR.

COMPANY IDENTITY: Noble Company
PRODUCT IDENTITY: FIREFIGHTER PG38

SDS DATE: 05/07/2015
ORIGINAL: 02/14/2015

SECTION 16. OTHER INFORMATION

16.1 HAZARD RATINGS:
HEALTH (NFPA): 0, HEALTH (HMIS): 0, FLAMMABILITY: 1, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

16.2 EMPLOYEE TRAINING
See Section 2 (Hazards Identification). Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

16.3 SDS DATE: 02/14/2015

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.
Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein.
This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Unless updated, the Safety Data Sheet is valid until 02/14/2018.
Safety Data Sheet was prepared by: Chemical Data Services, e-mail: chemdatsrv@aol.com.

SAFETY DATA SHEET

FLAMESAFE® FS 900+

Water-based elastomeric firestop

Section 1 – Product and Company Information

Product Name
Flamesafe® FS 900+ Sealant

Product Codes
66831, 66832, 66833, 66835, 66836, 66852, 66853, 66855

Chemical Family
Polyvinyl acetate & acrylic latex based emulsion

Use
Elastomeric acrylic firestop

Manufacturer's Name
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

Date of Validation
March 13, 2018

Date of Preparation
March 13, 2018

HMIS Codes

Health	2
Flammability	0
Reactivity	0
PPI	B

Emergency Telephone No.
Chemtrec 24 Hours
(800)-424-9300 USA
(703)-527-3887 International

Technical Service Telephone No.
(800)-231-3345 or (713)-263-8001

Section 2 – Hazards Identification

GHS CLASSIFICATION

Physical Hazards:
None

Health Hazards

Acute Toxicity:
Oral: Not Classified
Dermal: Not Classified
Inhalation: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/Eye Irritation: Not Classified
Respiratory or Skin Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: Not Classified
Reproductive Toxicology: Not Classified

Target Organ Systemic Toxicity - Single Exposure: Not Classified
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified

Aspiration Toxicity: Not Classified

ENVIRONMENTAL HAZARDS

Hazardous to the Aquatic Environment: Not Classified
Acute aquatic toxicity: Not Classified
Chronic aquatic toxicity: Not Classified
Bioaccumulation potential: Not Classified
Rapid degradability: Not Classified

GHS Label elements, including precautionary statements

Pictogram: None

Signal Word: None

Hazard Statements:
None

Precautionary Statements:
P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Labeling Symbols: None

Risk R-Phrases: None

Safety S-Phrases:
S2: Keep out of the reach of children.

Summary Of Acute Hazards

May cause skin irritation.

Route Of Exposure, Signs And Symptoms

INHALATION
Spray applications of this material may create aerosols, which may be irritating to the upper respiratory tract, nose, and throat.

EYE CONTACT
Contact may cause eye irritation.

SKIN CONTACT
Contact may cause skin irritation.

INGESTION
Possible irritation to mucous membranes of the mouth, throat, and stomach.

SUMMARY OF CHRONIC HAZARDS
None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Persons with pre-existing skin conditions or chemical allergies may be more susceptible to contact effects of the cured elastomer.

Section 3 – Composition/Information on Ingredients

Ingredient:	Aluminum oxide
Percentage by weight:	10-25
CAS Number:	1344-28-1
EC#:	215-691-6
Ingredient:	Zinc borate
Percentage by weight:	1-10
CAS Number:	1332-07-6
EC#:	215-566-6

Section 4 – First Aid Measures

If inhaled:	Not a respiratory irritant.
If on skin:	Wash with soap and water. If irritation occurs, seek medical attention.
If in eyes:	Immediately flush with large amounts of water. If irritation occurs, seek medical attention.
If swallowed:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 – Fire Fighting Measures

Extinguishing Media
Foam, dry chemical, carbon dioxide or water fog.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).

Unusual Fire And Explosion Hazards: Heat may build up and rupture closed containers.

Section 6 – Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Wipe up spills to prevent footing hazard. Avoid flushing into sewers, drains, waterways and soil. Wear protective clothing during clean up.

Section 7 – Handling and Storage

Precautions To Be Taken In Handling And Storing: Keep container closed and upright when not in use. To prevent freezing and possible rupture of container, do not store below 35°F.

Other Precautions: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues and vapors; treat as if full and observe all product precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

Section 8 – Exposure Controls/Personal Protection

Ingredient	Units
Aluminum oxide	
ACGIH TLV	10 mg/m3 (TWA)
OSHA PEL	10 mg/m3 (TWA)
Zinc borate	
ACGIH TLV	N/D
OSHA PEL	N/D

Respiratory Protection (Specify Type): None required.

Ventilation – Local Exhaust: Acceptable.

Special: N/A

Mechanical (General): Preferable.

Other: N/A

Protective Gloves: Wear rubber gloves.

Eye Protection: Safety glasses (ANSI Z-87.1 or equivalent)

Other Protective Clothing Or Equipment: Coveralls recommended.

Work/Hygienic Practices: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 – Physical and Chemical Properties

Boiling point:	> 212°F (100°C)
pH:	8-10
Specific gravity (H20 = 1):	N/D
Vapor pressure (mmHg):	N/D
Melting point:	N/D
Vapor Density (Air = 1):	> 1
Evaporation rate (Ethyl Acetate = 1):	1

Appearance/Odor:	Red mastic/Mild latex odor
Solubility in water:	Soluble
Volatile Organic Compounds (VOC) Content (theoretical percentage by weight):	5.4 g/L

Section 10 – Stability and Reactivity

Stability: Stable

Conditions To Avoid: None.

Incompatibility (Materials To Avoid): None known.

Hazardous Decomposition Products: CO, CO_2 and fragmented hydrocarbons.

Hazardous Polymerization: Will not occur.

Section 11 – Toxicology Information

Chronic Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Toxicology Data

Ingredient Name

None

Section 12 – Ecological Information

Ecological Data

Ingredient Name (no data available unless listed below):	**No data available for product**

Section 13 – Disposal Considerations

Waste Classification: Non-regulated

Disposal Method: Solidification / landfill

Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with federal, state, and local regulation regarding pollution.

Section 14 – Transportation Information

DOT:	Non-regulated
Ocean (IMDG):	Non-regulated
Air (IATA):	Non-regulated
WHMIS (Canada):	D2B

Section 15 – Regulatory Information

Regulatory Data

Ingredient Name:	**Aluminum oxide**
SARA 313	Yes
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Ingredient Name:	**Zinc borate**
SARA 313	Yes
TSCA Inventory	Yes
CERCLA RQ	1,000 lbs.
RCRA Code	N/A

Section 16 – Other Information

Labeling Symbols: None

Risk R-Phrases: None

Safety S-Phrases:
S2: Keep out of the reach of children.

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001

FLUX-RITE 90® Paste

LA-CO Industries, Inc.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)
Date of issue: 12/02/1994Revision date: 03/05/2015Supersedes: 02/04/2013
Version: 2.0

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

1.1. Product identifier

Product form : Mixture

Trade name : FLUX-RITE 90® Paste

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

Use of the substance/mixture : Soldering flux

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com

1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard

Not classified

2.2 Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
Ethanolamine hydrochloride	(CAS No) 2002-24-6	4.56	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
ammonium chloride	(CAS No) 12125-02-9	1.65	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
lithium chloride	(CAS No) 7447-41-8	1.32	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air.

First-aid measures after skin contact : Wash skin with mild soap and water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries after inhalation : Irritation.

Symptoms/injuries after eye contact : May cause slight irritation.

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

No special procedures required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Foam. Water fog.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No particular fire or explosion hazard.

Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Fire-resistant protective clothing. Wear a self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : This product is not hazardous.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses.

Emergency procedures : No additional risk management measures required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up : Wipe up with absorbent material (for example cloth).

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Does not necessitate any specific/particular technical measures.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place.

Incompatible products : None known.

7.3. Specific end use(s)

Flux.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

FLUX-RITE 90® Paste		
ACGIH	Not applicable	
OSHA	Not applicable	

ammonium chloride (12125-02-9)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
ACGIH	ACGIH STEL (mg/m³)	20 mg/m³
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	Not applicable	
Canada (Quebec)	VECD (mg/m³)	20 mg/m³
Canada (Quebec)	VEMP (mg/m³)	10 mg/m³

lithium chloride (7447-41-8)	
ACGIH	Not applicable
OSHA	Not applicable

Ethanolamine hydrochloride (2002-24-6)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : None under normal use.

Eye protection : In case of splashing or aerosol production: protective goggles.

Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Paste.

Colour : light yellow.

Odour : slight.

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : 1.1

Solubility : Material highly soluble in water.

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reactions known.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
Thermal decomposition generates : ammonia. ammonium chloride. Carbon dioxide. Carbon monoxide. hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

ammonium chloride (12125-02-9)	
LD50 oral rat	1410 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CLP (oral)	1410.000 mg/kg bodyweight

lithium chloride (7447-41-8)	
LD50 oral rat	526 mg/kg
LD50 dermal rat	> 2000 mg/kg No mortality observed
LC50 inhalation rat (mg/l)	5.57 mg/l/4h
ATE CLP (oral)	526.000 mg/kg bodyweight
ATE CLP (vapours)	5.570 mg/l/4h
ATE CLP (dust,mist)	5.570 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified

ammonium chloride (12125-02-9)	
NOAEL (subchronic, oral, animal/male, 90 days)	>= 580 mg/kg bodyweight 56 days

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms

Symptoms/injuries after inhalation : Irritation.
Symptoms/injuries after eye contact : May cause slight irritation.
Likely routes of exposure : Skin and eye contact;Inhalation

SECTION 12: Ecological information

12.1 Toxicity

ammonium chloride (12125-02-9)	
LC50 fish 1	209 mg/l 96 h

ammonium chloride (12125-02-9)	
EC50 Daphnia 1	101 mg/l 48 h

lithium chloride (7447-41-8)	
LC50 fish 1	158 mg/l 96 h
EC50 Daphnia 1	249 mg/l 48 h

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

lithium chloride (7447-41-8)	
Log Pow	-0.46

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR) : Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

ammonium chloride (12125-02-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

lithium chloride (7447-41-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethanolamine hydrochloride (2002-24-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

ammonium chloride (12125-02-9)
Listed on the Canadian DSL (Domestic Substances List) inventory.

lithium chloride (7447-41-8)
Listed on the Canadian DSL (Domestic Substances List) inventory.

Ethanolamine hydrochloride (2002-24-6)
Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

ammonium chloride (12125-02-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

lithium chloride (7447-41-8)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Ethanolamine hydrochloride (2002-24-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

FLUX-RITE 90® Paste
All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS). All ingredients are listed in the Toxic Substances Control Act (TSCA). All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations

ammonium chloride (12125-02-9)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revised sections: 1 - 16.

Data sources : ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.

ESIS (European chemincal Substances Information System; accessed at: http://esis.jrc.ec.europa.eu/index.php?PGM=cla.

European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://echa.europa.eu/. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

Abbreviations and acronyms : ACGIH (American Conference of Governement Industrial Hygienists).

ATE: Acute Toxicity Estimate.

CAS (Chemical Abstracts Service) number.

CLP: Classification, Labelling, Packaging.

EC50: Environmental Concentration associated with a response by 50% of the test population.

GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).

LD50: Lethal Dose for 50% of the test population.

OSHA: Occupational Safety & Health Administration.

PBT: Persistent, Bioaccumulative, Toxic.

STEL: Short Term Exposure Limits.

TSCA: Toxic Substances Control Act.

TWA: Time Weight Average.

Other information : None.

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

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

SDS Prepared by: The Redstone Group, LLC
6397 Emerald Pkwy.
Suite 200
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

LACO NA GHS SDS

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

SAFETY DATA SHEET – SET

Foam Sealant Type FST Kit

Product ID numbers: FST-250, FST-250KIT, FST-250KIT1,
FST-MINI-1, FST-MINI-1G, FST-MINI-B6;
FST-XXX (where XXX is the package code.)

Date Compiled: October 11, 2018

American Polywater® Corporation

Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

Emergency telephone numbers

INFOTRAC: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

This product is a kit or a multi-part product with independent components. An SDS for each component is included. Do not separate SDSs.

Contains

FST Foam Sealant Part A SDS
FST Foam Sealant Part B SDS
Type HP Wipe SDS

SDSs are classified according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Each Kit may or may not contain all SDS components

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company

1.1 Product identifier

Product Name:
Foam Sealant
FST (Part A)

Product ID numbers: FST-250, FST-250KIT, FST-250KIT1, FST-MINI-1, FST-MINI-1G, FST-MINI-B6, FST-MINI-B6; FST-XXX (where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Sealant, duct block; two-part material

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

1.4 Emergency telephone numbers

INFOTRAC: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Acute Toxicity, Cat 4; H332
Skin Irritation, Cat 2; H315
Eye Irritation, Cat 2A; H319
Respiratory Sensitization, Cat 1; H334
Skin Sensitization, Cat 1; H317
Target Organ Toxicity (single exposure), Cat 3; H335
Target Organ Toxicity (repeated exposure), Cat 2; H373

2.2 Label elements

Contains: Polymeric diphenylmethane diisocyanate; 4,4'-Diphenylmethane diisocyanate (MDI)

Pictograms:

Signal word: Danger

Hazard Statements:

H332	Harmful if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated inhalative exposure.

Precautionary Statements:

P260	Do not breathe fumes.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection.
P284	In case of inadequate ventilation wear respiratory protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P337 + P313	If eye irritation persists: Get medical attention.
P342 + P311	If experiencing respiratory symptoms: Call a poison center or doctor.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with local and national regulations.

Notes: 4,4'-methylenediphenyl diisocyanate (MDI) has not been designated as a carcinogen by IARC, NTP, ACGIH, OSHA, or the EPA. There are inadequate human carcinogenicity data, and only limited animal data. Additionally, the IARC Working Group noted that tumorigenic effects observed in animals may be attributed to non-specific particle effect (IARC monograph 71). We have not classified substance as a carcinogen, but recommend that users avoid inhalation of vapor above exposure limits.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	Wt. %
Polymeric diphenylmethane diisocyanate	9016-87-9	30 - 60
4,4'-Diphenylmethane diisocyanate (MDI)	101-68-8	30 - 60

4. First Aid Measures

4.1 Description of first aid measures

Eye Contact:	Immediately flush eyes with large quantity of water for 15 minutes. Seek medical attention.
Skin Contact:	Remove contaminated clothing; flush skin thoroughly with soap and water. If irritation occurs, seek medical attention.
Inhalation (Breathing):	If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.
Ingestion (Swallowing):	If swallowed, rinse mouth and drink plenty of water. Do not induce vomiting. If patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person. Do not leave victim unattended. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause allergic skin and respiratory reaction. Refer to Section 11 for more information.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:
Water Fog, Carbon Dioxide, Dry Chemical or Foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition and by-products:

Carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

5.3 Advice for firefighters
Full protective equipment including self-contained breathing apparatus should be used. Water spray may be used to cool fire exposed container to prevent pressure build-up and possible auto-ignition or rupture.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:
Wear full protective clothing, including appropriate respiratory protection.

6.2 Environmental precautions:
Prevent from entering waterways.

6.3 Methods materials for containment and cleaning up:
Spills expected to be small quantities. Collect excess material with absorbents or wipe with dry towels. Wash with a dilute ammonia solution.

6.4 Reference to other sections:
Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling
Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities
Keep containers cool, dry, and away from sources of ignition. Keep cartridges capped and sealed. Protect from freezing. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3 Specific end uses
See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

Country/Source	Component	Long-term exposure limit 8 hr. OEL, TWA	Short-term (ceiling) exposure limit – 15 min
USA – ACGIH TWA	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm	0.02 ppm
USA – OSHA OEL	4,4'-Diphenylmethane diisocyanate (MDI)	--	0.02 ppm
USA – NIOSH REL	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm	0.02 ppm
Canada (Ontario)	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm	0.02 ppm

Canada (Québec)	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm	--
Canada (British Columbia)	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm	0.01 ppm
Canada (Alberta)	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm.	--
Canada (Alberta)	Polymeric diphenylmethane diisocyanate	0.005 ppm	--
Canada (Saskatchewan)	4,4'-Diphenylmethane diisocyanate (MDI)	0.005 ppm	0.015 ppm
Canada (Yukon)	4,4'-Diphenylmethane diisocyanate (MDI)	0.02 ppm	--

ACGIH, OSHA and NIOSH have not established any OELs for Polymeric diphenylmethane diisocyanate (pMDI)

8.2 Exposure controls

Respiratory protection:
Use with adequate ventilation to keep vapor concentration below acceptable limits. Observe OSHA standard 29 CFR 1910-94, 1910.107, 1910.108. Product dispensed through a static mixer and used as directed emits less than 0.001 ppm MDI vapor as tested by OSHA 47. Ventilation is not required for standard use. If product is use in a way that ventilation is not adequate, use approved chemical/mechanical filters designed to remove a combination of particulate and organic vapors in open and restricted areas. Use approved airline type respirators or hoods in confined areas. Observe OSHA standard 29 CFR 1910.134.

Protective gloves:

The use of chemically resistant gloves is recommended to prevent skin contact. Suitable materials include neoprene, butyl rubber, Viton, Buna N, and chlorinated polyethylene.

Eye protection:

Safety glasses recommended.

Other protective equipment:
Wear suitable protective clothing. Use protective cream if skin contact is likely. Remove and wash contaminated clothing before reuse. Discard contaminated shoes.

9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Brown liquid
Odor threshold:	Faint, aromatic odor
pH:	Does not apply
Freezing point:	3°C
Boiling point:	200°C
Flash point:	428°F / 220°C (open cup)
Evaporation rate:	Not available
Flammability (solid, gas):	Does not apply
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	0.00016 mm Hg @ 20°C
Vapor density (Air = 1):	1.22 g/cm^3
Specific gravity (H_2O = 1):	1.22 @ 25°C
Solubility in water:	Reacts
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	> 250°C (1112°F)
Decomposition temperature:	Not available
Viscosity:	200 mPas @ 25°C / 77°F

9.2 Other Information

Volatiles (Weight %):	0%
VOC Content:	0 g/l

10. Stability and Reactivity

10.1 Reactivity:

Reacts with water, reacts with substances which contain active hydrogen.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid:

Avoid freezing, high temperatures, flame, high humidity and water contamination.

10.5 Incompatible materials :

Water, alcohols, amines, acids, alkalis, metal compounds.

10.6 Hazardous decomposition products:

Carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact with material or vapors may cause eye irritation.

Skin contact:

Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material. Allergic skin reaction symptoms include redness, swelling, blistering and itching.

Irritation and Sensitization Potential:

Product may be irritating to skin and eyes.

Inhalation (Breathing):

Material has low vapor pressure and inhalation hazard is expected to be minimal. Vapor exposure may cause irritation of the nose and throat. Symptoms may include burning sensation, coughing and shortness of breath, or other signs of respiratory distress. May cause allergic respiratory reaction below exposure guideline in susceptible individuals.

Ingestion:

Ingestion may cause irritation of the gastrointestinal tract.

Toxicity to Animals:

4,4'-Diphenylmethane diisocyanate (MDI):	LD_{50} (oral rat) >2,000 mg/kg
	LD_{50} (dermal rabbit) >9,400 mg/kg
	LC_{50} (inhl rat) 2.0 mg/L (OECD Guideline 403)

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity:	Not available.
Mutagenicity:	Not available.
Teratogenicity:	Not available.
Specific Target Organ Toxicity (STOT)	Contains material which causes damage to the upper respiratory tract.

Toxicologically Synergistic Products: Not available.

Carcinogenic Status: This substance contains components identified as IARC Category 3, not classifiable.

4,4'-methylenediphenyl diisocyanate (MDI) has not been designated as a carcinogen by IARC, NTP, ACGIH, OSHA, or the EPA. There are inadequate human carcinogenicity data, and only limited animal data. Additionally, the IARC Working Group noted that tumorigenic effects observed in animals may be attributed to non-specific particle effect (IARC monograph 71). We have not classified substance as a carcinogen, but recommend that users avoid inhalation of vapor above exposure limits.

Respiratory/Skin Sensitization

May cause sensitization by inhalation and skin contact..

12. Ecological Information

12.1 Toxicity:

Aquatic Toxicity:

4,4'-Diphenylmethane diisocyanate (MDI):	LC_{50} (96 hr.): > 1,000 mg/l Brachydanio rerio (fish) OECD Guideline 203 static
4,4'-Diphenylmethane diisocyanate (MDI):	EC_{50} (24 hr.): > 1,000 mg/l Daphnia magna (invertebrate) OECD Guideline 202, part 1 static
4,4'-Diphenylmethane diisocyanate (MDI):	EC_{50} (72 hr.): 1,640 mg/l Green algae (aquatic plants) OECD Guideline 201 static
12.2 Persistence and degradability:	Elimination information: <10% BOD of the ThOD (28d) (OECD Guideline 302 C, aerobic, activated sludge) Under test conditions, poorly biodegradable.
12.3 Bioaccumulation potential:	Accumulation in organisms is not to be expected.
12.4 Mobility in soil:	Adsorption to solid soil phase is not expected
12.5 Results of PBT and vPvB Assessment:	This product is not, nor does it contain a substance that is a PBT or vPvB.
12.6 Other adverse effects:	None known.

13. Disposal Considerations

Dispose of product in accordance with National and Local Regulations.

14. Transport Information

UN Number:	Not Listed
UN Proper shipping name:	Not Applicable
Transport hazard class(es):	Not Applicable
Packing group:	Not Applicable
Environmental hazards:	None known
Special precautions:	None known
TDG:	Not Regulated
ICAO/IATA-DGR:	Not Regulated
IMDG:	Not Regulated
ADR/RID:	Not Regulated

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

USA Federal and State
All components are listed on the TSCA inventory.

Hazard Categories for SARA Section 311/312 Reporting	Acute	Chronic	Fire	Pressure	Reactive
	Yes	Yes	No	No	No

Components	CERCLA/SARA Sec 302 Hazardous Substance RQ	EHS TPQ	SARA Sec. 313 Toxic Release
4,4'-Diphenylmethane diisocyanate (MDI)	Yes (5,000 lbs.)	No	Yes (1%)
Polymeric diphenylmethane diisocyanate	No	No	Yes (1%)

California Proposition 65:
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm or has been assessed to be below OEHHA Safe Harbor exposure levels required for labeling.

Canada
All components are listed on the DSL inventory.
This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out for the mixture by the supplier.

16. Other Information

NFPA Ratings: Health: 2
Fire: 1
Reactivity: 1

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

Abbreviations and acronyms:
OSHA = Occupational Safety and Health Administration
STOT = Specific Target Organ Toxicity
LD_{50} = Median Lethal Dose
DNEL = Derived No Effect Level
ACGIH = American Conference of Governmental Industrial Hygienists
TSCA = Toxic Substances Control Act (USA)
DSL = Domestic Substances List (Canada)

Mixture classification according to Regulation (EC) No 1272/2008:		Classification Procedure
H332	Harmful if inhaled.	Calculation method.
H315	Causes skin irritation.	Calculation method.
H317	May cause an allergic skin reaction.	Calculation method.
H319	Causes serious eye irritation.	Calculation method.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Calculation method.
H335	May cause respiratory irritation.	Calculation method.
H373	May cause damage to organs through prolonged or repeated inhalative exposure.	Calculation method.

Revision Date: September 21, 2018
Revision Number: 11
Supersedes: August 9, 2017
Other: Not Applicable

Indication of Changes: Section 3, 15 updated; format updates and additional California Proposition 65 information. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company

1.1 Product identifier

Product Name:
Foam Sealant
FST (Part B)

Product ID numbers: FST-250, FST-250KIT, FST-250KIT1, FST-MINI-1, FST-MINI-1G, FST-MINI-B6, FST-MINI-B6; FST-XXX (where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Sealant, duct block; two-part material

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

1.4 Emergency telephone numbers

INFOTRAC: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Acute Toxicity, Cat 4; H302

2.2 Label elements

Contains: 2-Propanol,1-chloro-, Phosphate (3:1)

Pictograms:

Signal word: Warning

Hazard Statements:

H302	Harmful if swallowed.

Precautionary Statements:

P270	Do not eat drink or smoke when using this product.
P301 + P312	IF SWALLOWED: Call a doctor if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents in accordance with local regulations.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	EC #	Wt. %
Polyether polyol mixture	Proprietary	--	60 - 100
2-propanol, 1-chloro-, Phosphate (3:1)	13674-84-5	237-158-7	10 - 30

Tertiary amine compounds	Proprietary	--	0.1 - 1

4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Immediately flush eyes with large quantity of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing; flush skin thoroughly with soap and water. If irritation occurs, seek medical attention.

Inhalation (Breathing): If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.

Ingestion (Swallowing): If swallowed, get medical attention. Do not induce vomiting. If patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:

Water Fog, Carbon Dioxide, Dry Chemical or Foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition and by-products:

Carbon monoxide, carbon dioxide, phosphorus oxides, silicon dioxide, hydrogen chloride gas.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be used to cool fire exposed container to prevent pressure build-up and possible auto-ignition or rupture.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear full protective clothing, including appropriate respiratory protection.

6.2 Environmental precautions:

Prevent from entering waterways.

6.3 Methods materials for containment and cleaning up:

Spills expected to be small quantities. Collect excess material with absorbents or wipe with dry towels. Wash with a dilute ammonia solution.

6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities

Keep containers dry, and away from excessive heat. Keep cartridges capped and sealed. Protect from freezing. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3 Specific end uses

See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

Contains no components with established Occupational Exposure Limit (OEL) values.

8.2 Exposure controls

Respiratory protection:

Use with adequate ventilation to keep vapor concentration below acceptable limits.

Protective gloves:

The use of chemically resistant gloves is recommended to prevent skin contact. Suitable materials include neoprene, butyl rubber, Viton, Buna N, and chlorinated polyethylene.

Eye protection:

Safety glasses recommended.

Other protective equipment:

Use protective cream if skin contact is likely. Remove and wash contaminated clothing before reuse. Discard contaminated shoes.

9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Clear to light amber liquid
Odor threshold:	Mild amine odor
pH:	Not available
Freezing point:	Not available
Boiling point:	Not available
Flash point:	>350°F / >177°C (PMCC)
Evaporation rate:	Not available
Flammability (solid, gas):	Does not apply
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density (Air = 1):	Not available
Specific gravity (H_2O = 1):	1.1 @ 25°C
Solubility in water:	Not available
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	650 cps @ 25°C / 77°F

9.2 Other Information

Volatiles (Weight %):	0%
VOC Content:	0 g/l

10. Stability and Reactivity

10.1 Reactivity:

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid:

Avoid freezing, high temperatures, and moisture.

10.5 Incompatible materials :

Isocyanates, strong oxidizing agents and strong bases.

10.6 Hazardous decomposition products:

Carbon monoxide, carbon dioxide, phosphorus oxides, silicon dioxide, hydrogen chloride gas.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact with material or vapors may cause eye irritation.

Skin contact:

May cause skin irritation

Irritation and Sensitization Potential:

Not considered a skin sensitizer.

Inhalation (Breathing):

May cause respiratory irritation.

Ingestion:

Harmful if swallowed.

Toxicity to Animals:

2-propanol, 1-chloro-, Phosphate (3:1)	LD_{50} (oral rat) 1,500 mg/kg
	LD_{50} (dermal rabbit) 1,230 mg/kg
	LC_{10} (inhl rat) 5 mg/m^3, 4 hours

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity:	Not available.
Mutagenicity:	Not available.
Teratogenicity:	Not available.
Specific Target Organ Toxicity (STOT)	Not available.
Toxicologically Synergistic Products:	Not available.
Carcinogenic Status:	This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.

12. Ecological Information

12.1 Aquatic Toxicity:	No information available.
12.2 Persistence and degradability:	No information available.
12.3 Bioaccumulation potential:	No information available.
12.4 Mobility in soil:	No information available.

12.5 Results of PBT and vPvB Assessment:	This product is not, nor does it contain a substance that is a PBT or vPvB.
12.6 Other adverse effects:	None known.

13. Disposal Considerations

Dispose of product in accordance with National and Local Regulations.

14. Transport Information

UN Number:	Not Listed
UN Proper shipping name:	Not Applicable
Transport hazard class(es):	Not Applicable
Packing group:	Not Applicable
Environmental hazards:	None known
Special precautions:	None known
TDG:	Not Regulated
ICAO/IATA-DGR:	Not Regulated
IMDG:	Not Regulated
ADR/RID:	Not Regulated

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

USA Federal and State
All components are listed on the TSCA inventory.

Hazard Categories for SARA Section 311/312 Reporting	**Acute**	**Chronic**	**Fire**	**Pressure**	**Reactive**
	Yes	No	No	No	No

Components	**CERCLA/SARA Sec 302 Hazardous Substance RQ**	**EHS TPQ**	**SARA Sec. 313 Toxic Release**

The components of Foam Sealant FST - Part B are not affected by these Superfund regulations.

NFPA Ratings:

Health:	1
Fire:	1
Reactivity:	0

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

California Proposition 65
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm or has been assessed to be below OEHHA Safe Harbor exposure levels required for labeling.

European Union
Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

Canada
All components are listed on the DSL inventory.
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Australia
All components are listed on the AICS.
Hazardous according to criteria of NOHSC Australia. Product classified as harmful (Xn).

15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out for the mixture by the supplier.

16. Other Information

Abbreviations and acronyms:
OSHA = Occupational Safety and Health Administration
CLP = Classification, Labeling and Packaging Regulation
STOT = Specific Target Organ Toxicity
LD_{50} = Median Lethal Dose
DNEL = Derived No Effect Level
ACGIH = American Conference of Governmental Industrial Hygienists
TSCA = Toxic Substances Control Act (USA)
DSL = Domestic Substances List (Canada)
AICS = Australian Inventory of Chemical Substances

Mixture classification according to Regulation (EC) No 1272/2008:	**Classification Procedure**
H302 Harmful if swallowed.	Calculation method.

Revision Date:	September 21, 2018
Revision Number:	8 NA
Supersedes:	August 16, 2017
Other:	Not Applicable
Indication of Changes:	Section 3, 15 updated; format updates and additional California Proposition 65 information. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

MATERIAL SAFETY DATA SHEET

NFPA	WHMIS	Personal Protective Equipment	Transport Symbol
	Not Controlled		Not Regulated

Preparation Date: 5-March-1997 **Revision Date** 16-July-2007 **Revision Number** 5

1. PRODUCT and COMPANY IDENTIFICATION

Generic Product Name Foamular® Extruded Polystyrene Insulation

Common name Foamular® 150, Foamular® 250, Foamular® 350, Foamular® 400, Foamular® 404, Foamular® 600, Foamular® 604, Foamular® 1000, Foamular® CW15, Foamular® CW25, Foamular® LT30, Foamular® LT40, Foamular® 404RB, Foamular® 604RB, Foamular® AgTek, Foamular® **PRO**PINK®, Foamular® DURAPINK®, Foamular® PINKCORE®, Foamular® PINKCORE® TT, Foamular® Half-Inch, Foamular® INSULPINK®, Foamular® THERMAPINK®, Foamular® DURAPINK® FA, Foamular® DURAPINK® Plus, Foamular® INSULPINK® - Z, Foamular® THERMAPINK® 18, Foamular® THERMAPINK® 25, Foamular® THERMAPINK® 40, Foamular® THERMAPINK® 60, Foamular® Extruded Polystyrene, Foamular® Insulating Sheathing, Foamular® INSUL-DRAIN®, Foamular® PinkForm-Xtra ; Foamular® OC LiteForm

MSDS No. 21528-NAM-EN

Recommended Use Insulation

Contact manufacturer Owens Corning foam insulation, LLC
One Owens Corning Parkway
Toledo, OH 43659

Emergency telephone number

Emergencies Only (after 5 pm AND weekends)	1-419-248-5330
CHEMTREC (24 hours everyday)	1-800-424-9300
CAUNTEC (Canada – 24 hours everyday)	1-613-996-6666

Health and Technical contacts

Health Issues Information (8am-5pm ET):	1-419-248-8234
Technical Product Information (8am-5pm ET):	1-800-GET-PINK or 1-800-438-7465

2. HAZARD IDENTIFICATION

Emergency Overview

Dense Black Smoke will be produced during a fire

Grinding, sawing, or fabrication activities can produce dust particles which may under certain conditions form explosive dust atmospheres that can be ignited.

Appearance: Pink, White, Green **Physical State:** Solid **Odor:** Odorless

Potential Health Effects

Principle Routes of Exposure Eye
Inhalation

Acute Effects

- **Eyes** Dust may cause slight irritation
- **Skin** No effects expected
- **Inhalation** Dust may cause irritation of respiratory tract
- **Ingestion** Ingestion of material is unlikely

Chronic Effects There is no known chronic health effect connected with long-term use or contact with these products

Aggravated Medical Conditions
Chronic respiratory or skin conditions may temporarily worsen from exposure to this product

Carcinogenic Status
This product is not considered a carcinogen

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Potential Environmental Effects
There is no known ecological information for this product

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component	Percent by Wt.
9003-53-6	Polystyrene	80-100
75-68-3	HCFC-142b	7-13
3194-55-6	Hexabromocyclododecane	0-1.5
14807-96-6	Talc	0-2

Non-Hazardous Statement The remaining components of this product are non-hazardous or are in small enough quantities as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.

4. FIRST AID MEASURES

Eye contact
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 Minutes
- Do not rub or scratch eyes
- If eye irritation persists, consult a specialist

Skin contact
- Wash off immediately with soap and water.
- If skin irritation persists, call a physician

Ingestion
- Accidental ingestion of this material is unlikely
- If this does occur, watch person for several days to make sure intestinal blockage does not occur
- If symptoms persist, call a physician

Inhalation
- Move to fresh air

- If symptoms persist, call a physician

5. FIRE-FIGHTING MEASURES

Flammability/Combustibility Properties Non-flammable

Suitable extinguishing media
dry chemical
foam
carbon dioxide (CO2)
water fog

Unsuitable Extinguishing Media None

Hazardous Combustion Products

- Carbon Monoxide
- Carbon Dioxide (CO2)
- Styrene
- Small quantities of hydrogen fluoride, hydrogen chloride, fluorine and chlorine could be released.
- Other undetermined compounds could be released in small quantities

HCFC-142b thermally decomposes at > 430°C (850°F).
Decomposition products include:

- Hydrogen Fluoride
- Hydrogen Chloride
- Fluorine
- Chlorine

Explosion Data
Sensitivity to Mechanical Impact Not available
Sensitivity to Static Discharge Not available

Special Hazards Arising from the Chemical
Grinding, sawing, or fabrication activities of the pellets can produce dust particles which may under certain conditions form an explosive dust atmosphere that can be ignited.

Protective Equipment and Precautions for Firefighters
Wear self-contained breathing apparatus (SCBA) and full fire fighting protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with eyes and inhalation.

Methods for Containment
- Material will settle out of air
- Prevent from spreading by covering or other means

Methods for Clean-up
- Use an industrial vacuum cleaner to clean up dust
- Avoid dry sweeping
- After cleaning, flush away traces with water
- Pick up and transfer to properly labeled containers

7. HANDLING AND STORAGE

Handling
- Avoid dust formation
- Do not breathe dust
- Wear personal protective equipment

Storage
- Keep product in its packaging until use to minimize potential dust generation.

- Material should be kept dry and covered

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

	ACGIH TLV	OSHA PEL
Polystyrene 9003-53-6	10 mg/m^3 (inhalable particulate) 3 mg/m^3 (respirable fraction – PNOC)	15 mg/m^3 (total dust) 5 mg/m^3 (respirable fraction –PNOC)
Talc 14807-96-6	2 mg/m^3 (respirable fraction – PNOC)	20 mppcf (Table Z-3 mineral dust)

Engineering Controls

- Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits.
- Grinding, sawing or fabrication activities of the Foamular® board can produce dust particles which may under certain conditions form explosive dust atmospheres that can be ignited.
- Dust collection system must be used in transferring operations, cutting or machining or other dust generating process.
- Vacuum or wet clean-up methods should be used

Personal protective equipment

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Eye/face Protection

Safety glasses with side-shields

Skin Protection

- Protective gloves
- Long sleeved shirt and long pants

General Hygiene Considerations

- Wash hands before breaks and immediately after handling the product
- Remove and wash contaminated clothing before re-use

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pink, white, green	
Odor	Odorless	
Physical State	Solid	
pH	Does not apply	
Flash point	>615^{0}F/324^{0}C	Method ASTM D1929
Autoignition temperature	Does not apply	
Boiling Point	Decomposes over 600^{0}F/316^{0}C	
Melting point/range	Softens @ 220^{0}F/104^{0}C	
Flammability Limits in Air	**lower /**	**upper /**
Explosive properties	Not available	
Oxidizing properties	Does not apply	
Vapor Pressure	Does not apply	
Specific Gravity	0.021-0.064 (water=1)	
Water solubility	Insoluble	
VOC content	Not available	

10. STABILITY AND REACTIVITY

Chemical Stability Stable

Conditions to avoid Dispersion of dust in air

Incompatible Materials Hydrocarbons

Esters
Amines

Hazardous decomposition products

- Carbon Monoxide
- Carbon Dioxide (CO2)
- Styrene
- Small quantities of hydrogen fluoride, hydrogen chloride, fluorine and chlorine could be released.
- Other undetermined compounds could be released in small quantities

HCFC-142b thermally decomposes at > 430°C (850°F). Decomposition products include:

- Hydrogen Fluoride
- Hydrogen Chloride
- Fluorine
- Chlorine

Possibility of Hazardous Reactions Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Acute toxicity

General Product Information

Dusts from cutting and drilling may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. Higher exposures may cause difficulty breathing, congestion and chest tightness.

Component Analysis – LD50/LC50

Component	CAS #	LD50 Oral	LC50 Inhalation
HCFC-142b	75-68-3		2050 gm/m^3 4H Rat 1758 gm/m^3 2H Mouse

Chronic toxicity

Component Analysis

	ACGIH	IARC	OSHA	NTP	Mexico
Polystyrene 9003-53-6		Group 3 not classifiable	--	--	--
Talc 14807-96-6	A4 not classifiable	Group 3 not classifiable	--	--	--

Allergy No information available

Neurological Effects No information available

Mutagenic Effects No information available

Reproductive Effects No information available

Developmental Effects No information available

Target Organ Effects No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity: This material is not expected to cause harm to animals, plants or fish

Chemical Fate

Persistance/Degradability	Not available
Bioaccumulation/Accumulation	Not available
Mobility in Environmental Media	Not available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of in accordance with Local, State, Federal and Provincial regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.
US EPA Waste Number	No EPA Waste Numbers are applicable for this product's components.
RCRA	This material is not expected to be a characteristic hazardous waste under RCRA

14. TRANSPORT INFORMATION

DOT	not regulated
TDG	not regulated
IMDG/IMO	not regulated
RID	not regulated
ADR	not regulated
ICAO	not regulated
IATA	not regulated
MEX	not regulated

15. REGULATORY INFORMATION

International Inventories
All components of this product are either listed on the following inventories or are exempt.

Component	CAS #	TSCA	DSL	EINECS
Polystyrene	9003-53-6	Yes	Yes	No
HCFC-142b	75-68-3	Yes	Yes	Yes
Hexabromocyclododecane	3194-55-6	Yes	Yes	Yes
Talc	14807-96-6	Yes	Yes	Yes

USA
Federal Regulations

SARA 313 Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)
This product does contain a chemical which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

HCFC-142b – form R reporting required for 1.0% de minims concentration

SARA 311/312 Hazardous Categorization

Acute Health Hazards	no
Chronic Health Hazards	no
Risk of Ignition	no
Sudden Release of Pressure	no
Reactive Hazard	no

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs

State Regulations

California Proposition 65

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the State of California to cause cancer.

State Right-To-Know

	CA	MA	MN	NJ	PA	IL	RI
HCFC-142b		X		X	X	X	X
Talc	X	X	X	X	X	X	X

Canada

Component Analysis – WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	
HCFC-142b	75-68-3	1% item 357 (425)

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

WHMIS Status Not Controlled

WHMIS Classification

Talc (14807-96-6) – D2A

16. OTHER INFORMATION

Preparation Date: 5-March-1997

Revision Date 16-July-2007

Revision Summary Format was changed, new company name

Disclaimer

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use

End of Safety Data Sheet