Safety Data Sheets

Created September 2023

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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.06.2014 Version number 1 Revision: 25.06.2014

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

· **1.1 Product identifier**

· **Trade name:** ***RIDGID HIGH PERFORMANCE THREAD CUTTING OIL***

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture** Lubricant for Industrial use

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
RIDGE TOOL EUROPE
INTERLEUVENLAAN,
RESEARCH PARK
HAASRODE,
3001 LEUVEN
BELGIUM
Tel.: +32 (0) 16380211
Fax: +32 (0) 16380210

· **Further information obtainable from:** Customer Service +32 (0) 16380211 (Office hours)

· **1.4 Emergency telephone number:**
During normal opening times: ++49/2947/88100
Customer Service +32 (0) 16380211 (Office hours)

2 Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

F+; Extremely flammable

R12: Extremely flammable.

· **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Warning! Pressurized container.

· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to EU guidelines:**
Observe the general safety regulations when handling chemicals.
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

F+ Extremely flammable

· **Risk phrases:**
12 Extremely flammable.

· **Safety phrases:**
1/2 Keep locked up and out of the reach of children.
16 Keep away from sources of ignition - No smoking.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.

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· **Special labelling of certain preparations:**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.
· **Classification in accordance with Directive 75/324/EEC:** Extremely flammable
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
	Zinc dialkyldithiophosphat Xi R38-41 N R51/53	0.1-<0.3%
CAS: 68476-86-8 EINECS: 270-705-8 Index number: 649-203-00-1	Petroleum gases, liquefied, sweetened F+ R12 Carc. Cat. 1, Muta. Cat. 2	25-50%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **4.1 Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Immediately rinse with water.
· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:** Rinse out mouth and then drink plenty of water.
· **4.2 Most important symptoms and effects, both acute and delayed** Gastric or intestinal disorders
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
Foam
Sand
Carbon dioxide
CO2, sand, extinguishing powder. Do not use water.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.
· **Additional information** Cool endangered receptacles with water spray.

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6 Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Keep away from ignition sources.
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Dispose of the material collected according to regulations.
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **7.1 Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Open and handle receptacle with care.
· **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
· **Information about storage in one common storage facility:**
Store away from flammable substances.
Store away from oxidizing agents.
Store away from foodstuffs.
· **Further information about storage conditions:**
Store under lock and key and out of the reach of children.
Store in cool, dry conditions in well sealed receptacles.
Keep container tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists valid during the making were used as basis.

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· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
· **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Use suitable respiratory protective device in case of insufficient ventilation.
· **Protection of hands:** Recommendation: Chemical resistant protective gloves (EN 374)
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Tightly sealed goggles

Use safety glasses according to EN 166 : 2001.

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Aerosol
Colour:	Brown
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-44 °C
· **Flash point:**	-60 °C
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	287 °C
· **Decomposition temperature:**	Not determined.
· **Self-igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.
· **Explosion limits:**	
Lower:	0.9 Vol %
Upper:	9.5 Vol %
· **Vapour pressure at 20 °C:**	0.1 hPa

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· **Density at 20 °C:**	0.5 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	0.0 %
· **9.2 Other information**	No further relevant information available.

10 Stability and reactivity

· **10.1 Reactivity** Reacts with strong oxidants and strong reducing agents under severe heat.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** Temperatures above 50 °C can result in breakage of the container
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:**
Emergence of flammable gases / vapors on contact with strong oxidizing agent' s possible.

11 Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**		
Zinc dialkyldithiophosphat		
Oral	LD50	>15000 mg/kg (rat)
Dermal	LD50	4100 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the skin:** May cause skin irritation after repeated contact.
· **on the eye:** May cause slight irritation to the eyes.
· **Sensitization:** No sensitizing effects known.

12 Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

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· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **14.1 UN-Number**	
· **ADR, IMDG, IATA**	UN1950
· **14.2 UN proper shipping name**	
· **ADR**	1950 AEROSOLS
· **IMDG**	AEROSOLS
· **IATA**	AEROSOLS, flammable
· **14.3 Transport hazard class(es)**	
· **ADR**	
· **Class**	2 5F Gases.
· **Label**	2.1
· **IMDG, IATA**	
· **Class**	2.1
· **Label**	2.1
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	Void
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	Warning: Gases.
· **Danger code (Kemler):**	-
· **EMS Number:**	F-D,S-U
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	1L
· **Transport category**	2

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· **Tunnel restriction code**	D

15 Regulatory information

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

· **Labelling according to EU guidelines:**
Observe the general safety regulations when handling chemicals.
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

F+ Extremely flammable

· **Risk phrases:**
12 Extremely flammable.

· **Safety phrases:**
1/2 Keep locked up and out of the reach of children.
16 Keep away from sources of ignition - No smoking.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.

· **Special labelling of certain preparations:**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.

· **Classification in accordance with Directive 75/324/EEC:** Extremely flammable

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
R12 Extremely flammable.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing MSDS:** Customer Service +32 (0) 16380211 (Office hours)

SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	ABC Dry Chemical Fire Extinguishant- (Pressurized and Non-pressurized)
Other Identifiers:	Multi-purpose Dry Chemical
Product Code(s):	CH550, F15, F18
Model Code(s) for Extinguishers:	411, 417, 419, 423, 424, 425, 441, 443, 450, 456, 461, 464, 467, 470, 473, 476, 481, 487, 488, 491, 495, 500, 564, 567, 573, 581, 589, 592, 594, 668, 692, 713, 714, 715, 720, 756, 760, 763, 781, 790, 791, 792.
Recommended Use:	Fire suppression, not for human or animal drug use.
Manufacturer:	AMEREX CORPORATION
Internet Address:	www.amerex-fire.com
Address:	7595 Gadsden Highway, P.O. Box 81 Trussville, AL 35173-0081
Company Telephone:	(205) 655-3271
E-mail Address:	info@amerex-fire.com
Emergency Contacts:	Chemtrec 1(800) 424-9300 or (703) 527–3887
Revised:	July 8, 2020; Revision B

Section 2. HAZARDS IDENTIFICATION

GHS – Classification

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

GHS – Label Symbol(s):

If Pressurized: Gas Under Pressure

GHS – Signal Word(s): **Warning**

Other Hazards Not Resulting in Classification: Mica may contain small quantities of quartz (crystalline silica). Prolonged exposure to respirable crystalline silica dust at concentrations exceeding the occupational exposure limits may increase the risk of developing a disabling lung disease known as silicosis. IARC found limited evidence for pulmonary carcinogenicity of crystalline silica in humans. In the case of normal use of this product, exposure to silica should be nil.

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

GHS – Hazard Phrases

GHS Hazard	GHS Codes(s)	Code Phrase(s)
Physical	H229	*- Contents under pressure; may explode if heated.
Health	303	May be harmful if swallowed.
	315	Causes skin irritation.
	319	Causes serious eye irritation.
	335	May cause respiratory irritation.
Environmental	411	Toxic to aquatic life with long-lasting effects.
Precautionary:		
General	P101	If medical advice is needed, have product container or label at hand.
Prevention	P251	Do not pierce or burn, even after use. [As modified by IV ATP]
	261	Avoid breathing dust/fumes/gas/mist/vapours/spray. [As modified by IV ATP]
	264	Wash … thoroughly after handling.
	270	Do not eat, drink or smoke when using this product.
	273	Avoid release to the environment.
	280	Wear protective gloves/protective clothing/eye protection/face protection.
Response	P312	Call a POISON CENTER/doctor/…/if you feel unwell [As modified by IV ATP]
	321	Specific treatment (see… on this label)
	362	Take off contaminated clothing. [As modified by IV ATP]
	391	Collect spillage.
	301+312	IF SWALLOWED: Call a POISON CENTER/doctor/…/if you feel unwell
	302+352	IF ON SKIN: Wash with plenty of water/…[As modified by IV ATP]
	304+340	IF INHALED, remove person to fresh air and keep comfortable for breathing.
	305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
	332+313	If skin irritation occurs: Get medical advice/attention.
	342+313	If experiencing respiratory symptoms, call a doctor.
	337+313	If eye irritation persists, get medical advice/attention.
Storage	P410+403	*- Protect from sunlight. Store in well-ventilated place.
Disposal	P501	Dispose of contents/container to … […*in accordance with local/regional/national/international regulation* (**to be specified**)].

*- If under pressure

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No.	Weight %
Mono-ammonium phosphate	231-764-5	01-2119488166-29	7722-76-1	55-77
Ammonium sulfate	231-984-1	01-2119455044-46	7783-20-2	15-45
Attapulgite clay	601-805-5	Not Available	12174-11-7	3-8
Mica- potassium aluminum silicate	310-1276	Not Available	12001-26-2	<1
Silicone oil methyl hydrogen polysiloxane	613-152-3	Not Available	63148-57-2	<1
Calcium carbonate	207-439-9	Not Available	1317-65-3	<1
Amorphous silica precipitated synthetic zeoliteghs	231-545-4	01-2119379499-16-0036	7631-86-9	<1
Yellow 14 pigment – diazo dye	226-789-3	Not Available	5468-75-7	<1

Adverse health effects and symptoms: Irritant to the respiratory system; Irritating to eyes and skin. Symptoms may include coughing, shortness of breath, and irritation of the lungs, eyes, and skin. Ingestion, although unlikely, may cause cramps, nausea and diarrhea.

Section 4. FIRST AID MEASURES

Eye Exposure: May cause irritation. Irrigate eyes with water and repeat until pain free. Seek medical attention if irritation develops, or if vision changes occur.

Skin Exposure: May cause skin irritation. In case of contact, wash with plenty of soap and water. Seek medical attention if irritation persists.

Inhalation: May cause irritation, along with coughing. If respiratory irritation or distress occurs, remove victim to fresh air. Give oxygen and artificial respiration if needed. Seek medical attention if irritation persists.

Ingestion: Overdose symptoms may include numbness or tingling in hands or feet, uneven heart rate, paralysis, feeling faint, chest pain or heavy feeling, pain spreading to the arm or shoulder, nausea, diarrhea, sweating, general ill feeling, or seizure (convulsions). If victim is conscious and alert, give 2-3 glasses of water to drink. If conscious, do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist.

Medical conditions possibly aggravated by exposure:	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease. Chronic overexposure may cause pneumoconiosis (“dusty lung” disease).

Section 5. FIRE-FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Non-combustible. Use extinguishing media suitable for surrounding conditions.
Hazardous Combustion Products:	Carbon and sulfur oxides
Explosion Data:	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive
Unusual fire/explosion hazards:	In a fire this material may decompose, releasing toxic and irritating oxides of carbon, sulfur, potassium, ammonia and nitrogen (see Section 10).
Protective Equipment and Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus in pressure-demand, NIOSH approved or equivalent and full protective gear.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid inhalation, and contact with skin, eyes, and clothing.
Personal Protective Equipment:	Minimum - safety glasses, gloves, and a dust respirator.
Emergency Procedures:	NA
Methods for Containment:	Prevent further leakage or spillage if safe to do so.
Methods for Clean Up:	Avoid dust formation. Clean up released material using vacuum or wet sweep and shovel to minimize generation of dust. Bag and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.
Environmental Precautions:	Prevent material from entering waterways.

Other: If product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture.

Section 7. HANDLING AND STORAGE

Personal Precautions: Use appropriate PPE when handling or maintaining equipment and wash thoroughly after handling (see Section 8).

Conditions for Safe Storage/Handling: Keep product in original container or extinguisher. Contents may be under pressure – inspect extinguisher consistent with product labeling to ensure container integrity.

Incompatible Products: Do not mix with other extinguishing agents, particularly potassium bicarbonate and sodium bicarbonate. Incompatible with strong oxidizing agents and strong acids. Do not store in high humidity. Do not combine with chlorine compounds.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL	ACGIH TLV	DFG MAK *	EU BLV
Mono-ammonium phosphate	PNOC** Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC** Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	PNOC** Total dust, 4 mg/m^3 Respirable fraction, 1.5 mg/m^3	NA
Ammonium Sulfate	PNOC** Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC** Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	PNOC** Total dust, 4 mg/m^3 Respirable fraction, 1.5 mg/m^3	NA
Mica	PNOC** Total dust, 15 mg/m^3 50 ug/m^3 Silica	PNOC** Total dust, 15 mg/m^3 25 ug/m^3 Silica	PNOC** Total dust, 4 mg/m^3 Respirable fraction, 1.5 mg/m^3	NA
Attapulgite Clay	PNOC** Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	PNOC** Total dust, 4 mg/m^3 Respirable fraction, 1.5 mg/m^3	
Silicone oil	NR**	NR**	NR**	NA
Calcium carbonate	PNOC** Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC** Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	-------	NA
Amorphous silica	80 mg/m^3 % silica	10 mg/m^3	4 mg/m^3	NA
Yellow 14 pigment	NR	NR	NR	NA

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

Engineering Controls: Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment – PPE Code E:

The need for respiratory protection is not probable during short-term exposure. PPE use during production process must be independently evaluated.




Eye/Face Protection:	Tightly fitting safety goggles
Skin and Body Protection:	Wear protective gloves/coveralls
Respiratory Protection:	If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. Use P100 respirators for limited exposure, use air-purifying respirator (APR) with high efficiency particulate air (HEPA) filters for prolonged exposure. Positive pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current safety and health requirements. The need for respiratory protection is not likely for short-term use in well ventilated areas.
Hygiene Measures:	Good personal hygiene practice is essential, such as avoiding food, tobacco products, or other hand-to-mouth contact when handling. Wash thoroughly after handling.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light yellow powder, finely divided odorless solid
Molecular Weight:	$NH_4H_2PO_4$: 115.03; $(NH_4)_2SO_4$: 132.14
Odor:	Odorless
Odor Threshold:	No information available
Decomposition Temperature ^oC:	100 - 120

Freezing Point ^{o}C:	No information available
Initial Boiling Point ^{o}C:	No information available
Physical State:	Crystalline Powder
pH:	Mixture approximately 4 to 5; NH4H2PO4: 4.2 in 0.2 molar solution; (NH4)2SO4: 5.5 in 0.1 molar solution
Flash Point ^{o}C:	None
Auto-ignition Temperature ^{o}C:	None
Boiling Point/Range ^{o}C:	No information available
Melting Point/Range ^{o}C:	NH4H2PO4: 190; (NH4)2SO4: 280
Flammability:	Not Flammable
Flammability/Explosive Limits in Air ^{o}C:	Upper – No; Lower-No
Explosive Properties:	None
Oxidizing Properties:	None
Volatile Component (%vol)	Not Applicable
Evaporation Rate:	No information available
Vapor Density:	No information available
Vapor Pressure at 25 ^{o}C:	NH4H2PO4: 1.41 mm/Hg; (NH4)2SO4: 2.573 kPa
Specific gravity at 25 ^{o}C:	NH4H2PO4: 1.80; (NH4)2SO4: 1.77
Solubility:	Coated-Not Immediately Soluble in Water
Partition Coefficient:	NH4H2PO4 Est: -4.11; (NH4)2SO4: Est: -0.48
Viscosity:	No information available

NOTE: NH4H2PO4 – Monoammonium Phosphate; (NH4)2SO4: – Ammonium Sulfate

Section 10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage and handling conditions.
Reactivity:	No reactivity for these chemicals is expected.
Incompatibles:	Strong alkalis (bases), magnesium, strong oxidizers, isocyanuric acids and chlorine compounds.
Conditions to Avoid:	Storage or handling near incompatibles.
Hazardous Decomposition Products:	Heat of fire may release carbon monoxide, carbon dioxide, and sulfur dioxide. Also, ammonia, oxides of phosphorous and nitrogen oxides may be released during decomposition.
Possibility of Hazardous Reactions:	Slight
Hazardous Polymerization	Does not occur

Section 11. TOXICOLOGICAL INFORMATION

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

Acute Toxicity Values - Health

Chemical Name	LD50		LC50 (Inhalation)
	Oral	Dermal	
Mono-ammonium phosphate	5750 mg/kg (rat)	>7940 mg/kg (rabbit)	Not available
Ammonium Sulfate	2840 mg/kg (rat)	>2000 mg/kg (rat)	>1000 mg/m^3 (rat)
Mica	None	None	None
Attapulgite clay	None	None	None
Silicone oil	None	None	None
Calcium carbonate	6450 mg/kg (rat)	500 mg/24 hr (rabbit)	Not available
Amorphous silica	>5000 mg/kg (rat)	>2000 mg/kg (rabbit)	>2.2 mg/L (rat)
Yellow 14 pigment	>17000 mg/kg (rat)	>3000 mg/kg (rat)	>4448 mg/m^3 (rat)

Reproductive Toxicity: This product's ingredients are not known to have reproductive or teratogenic effects.

Target Organs and Effects (TOST): Respiratory system irritant).
This product is a mild irritant to epithelial tissue, (eyes, mucous membranes, skin) and may aggravate dermatitis. No information was found indicating the product causes sensitization.

Other Toxicity Categories

Chemical Name	Germ Cell Mutagenicity	Carcino-genicity	Repro-ductive	TOST Single Exp	TOST Repeated Exp	Aspiration
Mono-ammonium phosphate	None	None	None	Cat 3	None	None
Ammonium Sulfate	None	None	None	Cat 3	None	None
Attapulgite clay	None	None	None	None	Kidney	None
Mica	None	None	None	None	None	None
Silicone oil	None	None	None	None	None	None
Calcium carbonate	None	None	None	None	None	None
Amorphous silica	None	None	None	None	None	None
Yellow 14 pigment	None	None	None	None	None	None

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:	Harmful effects to aquatic organisms after long-term exposure. Provides nutrient nitrogen and phosphorus to plant life.
Persistence/Degradability:	Degrades rapidly in humid/wet environment.
Probability of rapid biodegradation:	NH4H2PO4 Est: 0.693 (Rapid); (NH4)2SO4: Est: 0.684 (Rapid)
Anaerobic biodegradation probability:	NH4H2PO4 Est: 0.398 (Slow); (NH4)2SO4: Est: 0.398 (Slow)
Bioaccummulation potential:	Low.
Bioconcentration factor:	NH4H2PO4: 3.16 L/kg; (NH4)2SO4: 3.16 L/kg (wet weight) (Low BCF)
Bioaccummulation factor:	NH4H2PO4: 63.04 L/kg; (NH4)2SO4: 1.03 L/kg (wet weight)
Mobility in soil:	Slow evaporation rate; water soluble, may leach to groundwater
Log Koc:	NH4H2PO4 Est: -1.25; (NH4)2SO4 Est: 1.35
Log Koa:	NH4H2PO4 Est: 16.72; (NH4)2SO4 Est: 20.10
Log Kaw:	NH4H2PO4 Est: -20.86; (NH4)2SO4 Est: -19.62

NOTE: NH4H2PO4 – Mono-ammonium Phosphate; (NH4)2SO4: – Ammonium Sulfate

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

Aquatic Toxicity Values – Environment – Research

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

Aquatic Toxicity Values – Environment – Estimates

Chemical Name	Acute (LC50)	EC50
Mono-ammonium phosphate	2,91e+07 mg/l Fish 96 hr; 9.4e+06 mg/l Daphnid 48 hr;	6.70e+05 mg/l Gr. Algae 96 hr
Ammonium Sulfate	2521 mg/l Fish 96 hr; 1244 mg/l Daphnid 48 hr;	518 mg/l Gr. Algae 96 hr
Mica	N/A	N/A
Attapulgite clay	N/A	N/A
Silicone oil	N/A	N/A
Calcium carbonate	N/A	N/A
Amorphous silica	N/A	N/A
Yellow 14 pigment	N/A	N/A

Section 13. DISPOSAL CONSIDERATIONS

Safe Handling	Use appropriate PPE when handling and wash thoroughly after handling (see Section 8).
Waste Disposal Considerations	Dispose in accordance with federal, state, and local regulations.
Contaminated Packaging	Dispose in accordance with federal, state, and local regulations.

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

Section 14. TRANSPORT INFORMATION

UN Number:	NA
UN Proper Shipping Name:	NA
Transport Hazard Class:	NA
Packing Group:	NA
Marine Pollutant?:	NO
IATA	Not regulated
DOT	Not regulated

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

Special Precautions for Shipping:
The transportation information above covers the ABC 550 dry chemical extinguisher agent as shipped in bulk containers and not when contained in fire extinguishers or fire extinguisher systems. If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, non-toxic inert expellant gas, the fire extinguisher is considered a hazardous material by the US Department of Transportation and Transport Canada. The proper shipping name shall be FIRE EXTINGUISHER and the UN designation is UN 1044. The DOT hazard class/division is LIMITED QUANTITY when pressurized to less than 241 psig and when shipped via highway or rail. UN Class 2.2. Non-Flammable Gas, when shipping via air. Packing Group – N/A

Section 15. REGULATORY INFORMATION

International Inventory Status: All ingredients are on the following inventories

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

REACH Title XVII Restrictions: No information available

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

Component	ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA – Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) – Toxic Chemicals	Toxic Release Inventory (TRI) – Group I	Toxic Release Inventory (TRI) – Group II
Mono-ammonium Phosphate 7722-76-1	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Ammonium Sulphate 7783-20-2	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Attapulgite clay	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mica-potassium aluminum silicate 120001-26-2 (>2)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Calcium carbonate 471-34-1	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Amorphous silica 69012-64-2	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Yellow 14 pigment 5468-75-7	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

European Risk and Safety phrases:

EU Classification: XN Irritant
R Phrases: 20 Harmful by inhalation.
22 Harmful if swallowed

	36/37/38	Irritating to eyes, respiratory system, and skin.
S Phrases:	22	Do not breath dust.
	24/25	Avoid contact with skin and eyes
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	36	Wear suitable protective clothing.
	37/39	Wear suitable gloves and eye protection.

U.S. Federal Regulatory Information:

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

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

SARA 311/312 Hazard Categories:

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

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

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

U.S. State Regulatory Information:

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

Alaska - Designated Toxic and Hazardous Substances: None
California – Permissible Exposure Limits for Chemical Contaminants: None
Florida – Substance List: Mica Dust
Illinois – Toxic Substance List: None
Kansas – Section 302/303 List: None
Massachusetts – Substance List: Mica Dust
Minnesota – List of Hazardous Substances: None
Missouri – Employer Information/Toxic Substance List: None
New Jersey – Right to Know Hazardous Substance List: None

North Dakota – List of Hazardous Chemicals, Reportable Quantities: None
Pennsylvania – Hazardous Substance List: None
Rhode Island – Hazardous Substance List: Mica Dust
Texas – Hazardous Substance List: None
West Virginia – Hazardous Substance List: None
Wisconsin – Toxic and Hazardous Substances: None

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

Other:

Mexico – Grade	No component listed
Canada – WHMIS Hazard Class	Ammonium Sulfate listed as not a dangerous product according to HPR classification criteria

Section 16. OTHER INFORMATION

This Information Sheet complies with the requirements of US, UK, Canadian, Australian and European regulations or standards, and conforms to the proposed format, ANSI Z400.1, 2003. No modification of this safety data sheet is permitted by AMEREX Corporation. Questions or comments should be directed to AMEREX Corporation (see section 1).

Issuing Date	20-June-2012
Revision Date	8-July-2020; Revision B
Revision Notes	None

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

Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name ANSULEX LPH R-102 LIQUID AGENT

1. Identification

1.1. Product Identifier

Product name ANSULEX LPH R-102 LIQUID AGENT

1.2. Other means of identification

Product code 079372
Synonyms None
Chemical Family No information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use Fire extinguishing agent.
Uses advised against Consumer use.

1.4. Details of the Supplier of the Safety Data Sheet

Company Name Tyco Fire Protection Products
One Stanton Street
Marinette, WI 54143-2542
Telephone: 715-735-7411
Contact point Product Stewardship at 1-715-735-7411
E-mail address psra@tycofp.com

1.5. Emergency Telephone Number

Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

2. Hazards Identification

Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

2.2. Label Elements

Hazard Statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

Precautionary Statements

Prevention
Not Applicable.

Response
Not Applicable.

Storage
Not Applicable.

Disposal
Not Applicable.

2.3. Hazards Not Otherwise Classified (HNOC)
Not Applicable.

2.4. Other Information

3. Composition/information on Ingredients

3.1. Mixture
The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First aid measures

4.1. 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. Get medical attention if irritation develops and persists.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.).
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed
Symptoms No information available.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
Note to physicians Treat symptomatically.

5. Fire-fighting measures

5.1. Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Unsuitable Extinguishing Media
None.

5.3. Specific Hazards Arising from the Chemical
None known.

Hazardous Combustion Products Carbon oxides, Nitrogen oxides (NOx)

5.4. Explosion Data
Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

5.5. 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

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment 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

7.1. Precautions for Safe Handling

Advice on safe handling Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

8.1. 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.

8.2. Appropriate Engineering Controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment

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

Skin and Body Protection 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.
Ventilation	Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

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

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State	Liquid		
Odor	Acetic acid	**Color**	Light green
Odor Threshold	No data available		

Property	**Values**	**Remarks • Method**
pH	7.7 - 8.7	
Melting point/freezing point	No data available	
Boiling point / boiling range	100 °C / 212 °F	
Flash Point	> 100 °C / > 212 °F	
Evaporation Rate	No data available	
Flammability (solid, gas)	No data available	
Flammability limit in air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	
Specific gravity	1.33	
Water Solubility	Soluble in water	
Solubility in Other Solvents	No data available	
Partition coefficient	No data available	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Kinematic viscosity	No data available	

Density 1.32 g/cm3

10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization	Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information No data available

Inhalation No data available.

Eye Contact No data available.

Skin contact No data available.

Ingestion No data available.

Acute Toxicity

11.2. Information on Toxicological Effects

Symptoms No information available.

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

Carcinogenicity No information available.
Reproductive Toxicity No information available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Aspiration Hazard No information available.

11.4. Numerical Measures of Toxicity - Product information

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

ATEmix (oral) 10740 mg/kg

12. Ecological Information

12.1. Ecotoxicity

Not classified.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Potassium Acetate 127-08-2	-	LC50 (96h) semi-static = 6800 mg/L Oncorhynchus mykiss	EC50 (24h) = 7170 mg/L Daphnia magna

12.2. Persistence and Degradability
No information available.

12.3. Bioaccumulation
No information available.

12.4. Other Adverse Effects
No information available

13. Disposal Considerations

13.1. Waste Treatment Methods

Disposal of wastes	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
TDG	NOT REGULATED
MEX	NOT REGULATED
ICAO (air)	NOT REGULATED
IATA	NOT REGULATED
IMDG	NOT REGULATED

15. Regulatory Information

15.1. International Inventories

TSCA	Complies
DSL/NDSL	Complies
ENCS	Complies
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
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product 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	No
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

15.3. US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Potassium nitrite 7758-09-0	X	-	-

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

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

Revision date 21-Feb-2022
Revision note SDS sections updated, 15.
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

1. Identification

Identification
Product name: **FREEZEMASTER™ ANTIFREEZE**

Additional identification
Chemical name: Antifreeze

Recommended use and restriction on use
Recommended use: Fire Sprinkler Antifreeze
Restrictions on use: None identified.

Details of the supplier of the safety data sheet
Supplier
Company Name: THE LUBRIZOL CORPORATION
Address: 9921 BRECKSVILLE RD
BRECKSVILLE, OH 44141
US
Telephone: 216-447-5000

Emergency telephone number:
FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887, OR WITHIN USA 800 424 9300

2. Hazard(s) identification

Hazard Classification
Not classified

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 identified.

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Glycerin	56-81-5	20 – 30%

4. First-aid measures

Ingestion: Treat symptomatically. Get medical attention.

Inhalation: Remove exposed person to fresh air if adverse effects are observed.

Skin Contact: Wash with soap and water. If skin irritation occurs, get medical attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses.

Most important symptoms/effects, acute and delayed

Symptoms: See section 11.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

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

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: See section 10 for additional information.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Recommend wearing self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Check on local, national and international regulatory information to determine any reporting requirements for spills.

Methods and material for containment and cleaning up: Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

7. Handling and storage

Precautions for safe handling: Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment.

Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. See section 10 for incompatible materials.

Maximum Storage Temperature: Not determined.

8. Exposure controls/personal protection

Control Parameters:

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Glycerin - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Glycerin - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)

Appropriate engineering controls: No special requirements under ordinary conditions of use and with adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: If contact is likely, safety glasses with side shields are recommended.

Skin Protection

Hand Protection: Suitable gloves can be recommended by the glove supplier.

Other: No data available.

Respiratory Protection: Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

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.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Color: Blue

Odor: Characteristic

Odor threshold: No data available.

pH: 7 - 8

Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 201 °F (94 °C) (Pensky-Martens Closed Cup)
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:	1 - 1.1 68 °F (20 °C)
Solubility(ies)	
Solubility in water:	Soluble
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:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Not determined.
Incompatible Materials:	Strong oxidizing agents. Amines. Mercaptans. Reducing agents. Oxidizing agents.
Hazardous Decomposition Products:	Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

11. Toxicological information

Information on likely routes of exposure

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

Information on toxicological effects

Acute toxicity

Oral

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

Dermal

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

Inhalation

Product: Not classified for acute toxicity based on available data. Avoid inhalation of mists or vapors.

Skin Corrosion/Irritation:

Product: Remarks: Not classified as a primary skin irritant. Prolonged or repeated exposure may cause a slight flaking, tenderness, and softening of skin.

Serious Eye Damage/Eye Irritation:

Product: Remarks: Not classified as a primary eye irritant.

Respiratory sensitization:

No data available

Skin sensitization:

No data available

Specific Target Organ Toxicity - Single Exposure:

No data available

Aspiration Hazard:

No data available

Chronic Effects

Carcinogenicity:

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:

No data available

Reproductive toxicity:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

Product: Repeated excessive ingestion may cause central nervous system effects.

12. Ecological information

Ecotoxicity

Fish

Glycerin	LC 50 (Golden Orfe, 2 d): > 10,000 mg/l

Aquatic Invertebrates

Glycerin	EC 50 (Water flea (Daphnia magna), 1 d): > 10,000 mg/l

Toxicity to Aquatic Plants

No data available

Toxicity to soil dwelling organisms

No data available

Sediment Toxicity

No data available

Toxicity to Terrestrial Plants

No data available

Toxicity to Above-Ground Organisms

No data available

Toxicity to microorganisms

Glycerin	NOEC (Bacteria, 16 h): > 10,000 mg/l

Persistence and Degradability

Biodegradation

Glycerin	OECD TG 301 D, 90 %, 28 d, Readily biodegradable

Bioaccumulative potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

Glycerin	Log Kow: -1.76 (Measured)

Mobility:

No data available

Other adverse effects

No data available

13. Disposal considerations

Disposal instructions: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.
Since emptied containers retain product residue, follow label warnings even after container is emptied.

Contaminated Packaging: Container packaging may exhibit hazards.

14. Transport information

DOT
Not regulated.

IMDG
Not regulated.

IATA
Not regulated.

Transport in bulk according to Annex II of MARPOL and the IBC Code
None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4)
None present or none present in regulated quantities.
Superfund amendments and reauthorization act of 1986 (SARA)

SARA 311 Classifications
Not classified

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

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.

Inventory Status
Australia (AICS)
All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)
May require notification before sale under Canadian regulations.

China (IECSC)
All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACh)
To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)
This product contains a substance that is not listed on the Japanese Existing and New Chemical Substances (ENCS) list.

Korea (ECL)
All components are in compliance in Korea.

New Zealand (NZIoC)
This product requires notification before sale in New Zealand.

Philippines (PICCS)
This product requires notification before sale in the Philippines.

Switzerland (SWISS)
All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)
All components of this product are listed on the Taiwan inventory.

United States (TSCA)
All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

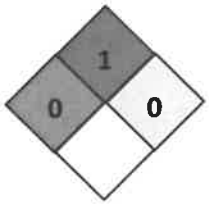
16.Other information, including date of preparation or last revision

HMIS Hazard ID

Health	0
Flammability	1
Physical Hazards	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Flammability
Health
Reactivity
Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 06/15/2020

Version #: 1.5

Source of information:	Internal company data and other publically available resources.
Further Information:	Contact supplier (see Section 1)
Disclaimer:	As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.

Safety Data Sheet

SDS ID: Stock Code 76023, 76025, 76027, 76029
Revision date: March 14, 2023

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Blue Monster™ Stay-Soft Thread Sealant**
Synonyms: None
Chemical family: Alkaline Earth Carbonate and PTFE mixture
Producer: The Mill-Rose Company
7310 Corporate Blvd.
Mentor, OH 44060

Telephone: **800-321-3598 Available during normal business hours**

Emergency: **INFOTRAC 800-535-5053 Available 24 hours**

Section 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200
Skin Corrosion/Irritation, *Category 3*
Eye Damage/Irritation, *Category 2B*
Hazardous to the aquatic environment, acute hazard, *Category 3*

Signal Word and Hazard statements
Warning — Causes mild skin irritation H316
Causes eye irritation H320
Harmful to aquatic life H402

Precautionary Statements
P332 + P313 If skin or eye irritation occurs: Get medical advice/attention
P305+P338 If in eyes, check for and remove any contact lenses if present and easy to do so.
P351 Rinse eyes cautiously with tepid water for several minutes.
P337 If eye irritation persists, continue rinsing.
P273 Avoid release to the environment – if this is not the intended use.
P501 Dispose of contents in accordance with Federal, State, Provincial, and local regulations

Inhalation: Not applicable

Ingestion: Unlikely to be toxic by ingestion. Provide first aid (see Section 4)

Skin contact: P264 Wash hands thoroughly after handling. May cause mechanical irritation from prolonged or repeated contact.

Eye contact: May cause mechanical eye irritation.

Carcinogenic: Titanium dioxide is listed by the IARC as group 2B, see Section 11.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

Material information:

Name	CAS No.	Weight %
Limestone	1317-65-3	17-23
Dolomitic limestone (Magnesite)	471-34-1 and 546-93-0	17-23
Talc	14807-96-6	8-13
Wollastonite	13983-17-0	8-13
Titanium dioxide	13463-67-7	<5
Zinc oxide	1314-13-2	<5
PTFE (Teflon®)	9002-84-0	<5
Non-hazardous ingredients	Not Applicable	13-47

***Note:** The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.*

Section 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of the dangerous area.

Inhalation: Move exposed persons to fresh air. If the person is not breathing or breathing is irregular, provide artificial respiration or oxygen by trained personnel. Consult a physician.

Skin contact: Remove contaminated clothing and shoes. Wash affected skin with soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.

Ingestion: Unlikely to be toxic by ingestion. Do not induce vomiting. Never give anything by mouth to an unconscious person. If conscious and alert, rinse the mouth with water. Call a physician or poison control center immediately.

Eye contact: P305+P338 If in eyes, check for and remove any contact lenses if present and easy to do so. P351 Rinse eyes cautiously with tepid water for several minutes. P337+313 If eye irritation persists, continue rinsing and get medical advice/attention.

Section 5. FIREFIGHTING MEASURES

Suitable extinguishing media:	Use water spray, foam, carbon dioxide, or dry chemical. Water or foam may cause frothing of materials heated above 212°F.
Specific hazards:	None
Advice for Firefighters:	Full protective equipment including self-contained breathing apparatus should be used. Do not allow run-off from fire-fighting to enter drains or water courses.

	NFPA rating:	HMIS rating:
Health:	1	1
Flammability:	0	0
Instability/reactivity:	0	0
Other:	N/A	B (PPE)

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Immediately contact emergency personnel. Evacuate any potentially affected area and isolate personnel from entry. Keep ignition sources away from the spill/release.
Large Spill:	Personnel must have appropriate training, per Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8). Stop the spill if it can be done safely.
Methods for Containment and Clean up	Shut off source if possible and if safe. Prevent entry into waterways and sewers. Wipe up or absorb on suitable material. Use a shovel to put the material into a convenient waste disposal container. Keep absorbed material in closed containers for disposal. Advise applicable authorities if material has entered sewers or water courses.

Section 7. HANDLING AND STORAGE

Handling:	Keep away from ignition sources. Keep containers closed when not in use. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Launder soiled clothing thoroughly before re-use.
Storage:	Keep all containers tightly closed when not in use. Do not store with incompatible materials. See Section 10, Stability and Reactivity.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Name	CAS No.	ACGIH® TLV® or NIOSH REL Exposure Limits:	Federal OSHA PELs	OSHA PELs 1989 [C]
Limestone	1317-65-3	10 [A], 3 [A,D]	15 [A], 5[A,D]	-
Dolomitic limestone (Magnesite)	471-34-1 546-93-0	10 [A], 3 [A,D]	15 [A], 5[A,D]	-
Talc	14807-96-6	2 [D]	Not Estab.	2 [D]
Wollastonite	13983-17-0	Not Estab.	Not Estab.	Not Estab.
Titanium dioxide	13463-67-7	10 [A], 3 [A,D]	15[A], 5[A,D]	10[A]
Zinc oxide	1314-13-2	2 [D], 10 [B, D]	15[A], 5[A,D]	10[A], 5[A,D]
PTFE (Teflon®)	9002-84-0	Not Estab.	Not Estab.	Not Estab.

All exposure limits listed are 8-hour time weighted average (TWA) — except where noted otherwise.

[A] Time Weighted Average (TWA) is an average exposure over the course of an 8-hour work shift. As measured in milligrams particulate per cubic meter of air.
[B] A Short Term Exposure Limit TWA over the course of 15 minutes.
PEL — Permissible Exposure Limit is the maximum 8-hour TWA concentration of a chemical that a worker may be exposed to under Occupational Safety and Health Administration (OSHA) regulations.
[C] Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.
[D] Respirable-size particulate.

Engineering measures: Local exhaust ventilation is preferable. General ventilation is acceptable if exposure to materials in this section is maintained below applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: When engineering controls are not sufficient to reduce exposure to levels below applicable exposure limits, seek professional advice prior to respirator selection and use. Wear a properly fitted NIOSH/ MSHA-approved respirator.

Skin and body protection: Wear impervious clothing and rubber gloves to prevent contact. Use the manufacturer's degradation and permeation data for protective material selection.

Eye protection: Wear safety spectacles with unperforated sideshields.

Hygiene measures: Avoid repeated or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove contaminated clothing and launder before reuse.

Other precautions: Not applicable

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Arctic blue paste
Physical state (solid/liquid/gas):	Paste
Substance type (pure/mixture):	Mixture
Color:	Blue
Odor:	Petroleum
Molecular weight:	Not available
pH:	Not Applicable
Boiling point/range (5-95%):	Not Available
Melting point/range:	Not Available
Decomposition temperature:	Not Available
Specific gravity:	1.69
Vapor density:	(AIR = 1) >1
Vapor pressure:	<1 mm Hg
Evaporation rate (Butyl acetate= 1):	<0.1
Flash point, method used:	350°F; 177°C
Water solubility:	Slight
VOC Content:	0 grams/liter
Auto-ignition temperature:	Not Available
Flammable limits in air — lower (%):	Not Available
Flammable limits in air — upper (%):	Not Available

Section 10. STABILITY AND REACTIVITY

Reactivity:	No data available
Stability:	Stable under recommended storage conditions.
Possibly hazardous reactions:	No data available
Conditions to avoid:	Extended exposures to high temperatures can cause decomposition.
Incompatible Materials:	Strong oxidizers, acids.
Hazardous decomposition products:	Carbon dioxide, carbon monoxide
Polymerization:	Will not occur.

Section 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Limestone	1317-65-3	No data available.	No data available.	Acute LD_{50} (Rat):6,450 mg/kg
Zinc oxide	1314-13-2	Acute LC_{50} (Mouse): 2,500 mg/m^3	No data available.	No data available.
PTFE (Teflon®)	9002-84-0	LC_{50} 4 hours (Rat): >6,820 mg/m^3	No data available.	Acute LD_{50} (Rat): >5,000 mg/kg

LC_{50} — the concentration of the chemical in air that kills 50% of the test animals in a given time (usually four hours).

Carcinogenicity: The IARC lists titanium dioxide as group 2B; and lists PTFE (Teflon®) as group 3. No ingredient of this product present at levels greater than 0.1% is listed as a carcinogen by the NTP and OSHA.

Reproductive toxicity: No data available.

Sensitization: No data available.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity effects:

Limestone
LC_{50} fish (not specified) 72-hour >200 mg/l.

Titanium Dioxide
EC_{50} Daphnia magna (Water flea) 48-hour >1,000 mg/l
EC_{50} Pseudokirchneriella subcapitata (green algae) 72-hour 61 mg/l
LC_{50} Pimephales promelas (fathead minnow) 96-hour >1,000 mg/l

Titanium Dioxide
EC_{50} Daphnia magna (Water flea) 48-hour 0.098 mg/l
LC_{50} Oncorhynchus mykiss (rainbow trout) 96-hour 1.1 mg/l

Persistence: No data available.

Degradability: No data available.

Section 13. DISPOSAL CONSIDERATIONS

Cleanup considerations: Dispose this material in accordance with Federal, State, Provincial, and/or local regulations.
The material destined for disposal must be characterized properly and may differ from the product described in this SDS if mixed with other wastes.

Section 14. TRANSPORT INFORMATION

Please refer to DOT regulation 49 CFR 172.101:

Transport information: This material is not regulated under DOT when transported via U.S. commerce routes; and IATA, and IMO via international routes

Hazardous Materials Description: (DOT and IATA):

UN/identification no.:	Not Applicable
Proper shipping name:	Not Applicable
Hazard class:	Not Applicable
Packing group:	Not Applicable
DOT reportable quantity (lbs.):	Not Applicable

Section 15. REGULATORY INFORMATION

U.S. federal regulatory information:

U.S. RCRA (40 CFR 261)
This product is not a hazardous waste as defined under RCRA 40 CFR 261.

State and community right-to-know regulations:
The following component(s) of this material are identified on the regulatory lists below:

U.S. TSCA Chemical inventory Section 8(b)
OSHA — This product is determined to be hazardous as defined in the OSHA Hazard Communications Standard (29 CFR 1910.1200)

.
CERCLA Sections 102a/103 (40 FR 302.4):
No ingredients are listed.

Components of this product are listed not in the following sections of **SARA**:
SARA Title III Section 302 — N/A
SARA Title III Section 304 — N/A
SARA Title III Section 313 — This product does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

Acute health hazard:	No
Chronic health hazard:	No
Fire hazard:	No
Reactive Hazard:	No
Pressure Hazard:	No

California Proposition 65 Components
This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm (quartz ≤0.01%). The listing of titanium dioxide is for "airborne, unbound particles of respirable size". This listing is not applicable to titanium dioxide when it remains bound with a product matrix.

WHMIS (Canada)
Titanium dioxide: Class D-2A: Material causing other toxic effects.
CAS# 1317-65-3 is listed on Canada's Non-Domestic Substance List
NOTE: *User must consult with applicable state and local agencies for special specifics, determinations or compliance obligations regarding this product.*

Section 16. OTHER INFORMATION

Standards and Certification Listings:

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, The Mill-Rose Company and its related operations or divisions do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. The Mill-Rose Company assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.

Firestop Submittal Package

TITLE

Project: PROJECTNAME
PROJECTADDRESS1
PROJECTADDRESS2
PROJECTCITY_PROJECTSTATE_PROJECTZIP

Date: SUBMITTALDATE

Submitted by: SUBMITTERNAME
SUBMITTERADDRESS1
SUBMITTERADDRESS2
SUBMITTERCITY_SUBMITTERSTATE_SUBMITTEI

This submittal is auto-generated based on user-selected inputs.
Therefore, Hilti makes no representation as to the suitability of these systems for their intended use.

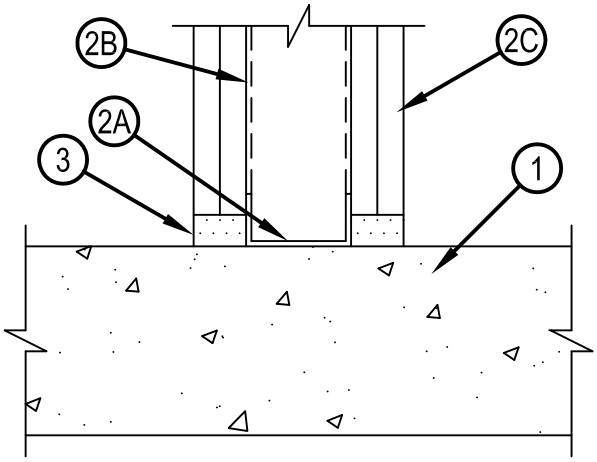
Hilti, Inc. (U.S.) 1-800-879-8000 **www.hilti.com** • en español 1-800-879-5000 P.O. Box 21148 Tulsa, Oklahoma 74121
Hilti (Canada) Corp. 1-800-363-4458 **www.hilti.ca** • 2360 Meadowpine Blvd., Mississauga, Ontario L5N 6S2

Table Of Contents

Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

System No. BW-S-0001

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400° F — Less than 1 CFM/Lin Ft



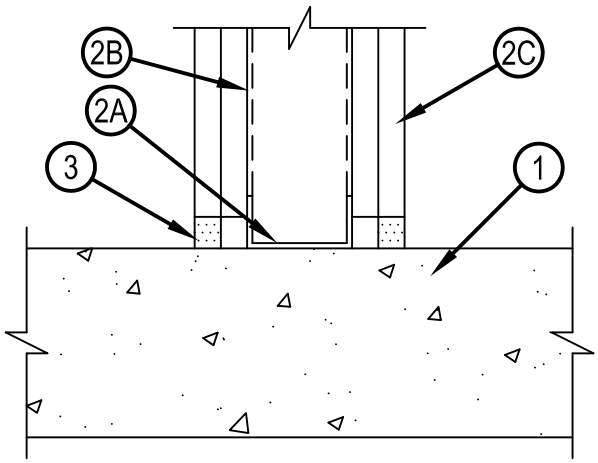
1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:
   A. Steel Floor Runner — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with min 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced 12 in. (305 mm) OC.
   B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor. The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* Sealant — Max separation between top of floor and bottom of gypsum board is 3/4 in. (19 mm). For 1 and 2 hr rated wall assemblies, min 5/8 in. or 1-1/4 in. (16 or 1-1/4 mm) thickness of fill material, respectively, installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant, CP606 Flexible Firestop Sealant, CFS-S SIL GG, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

System No. BW-S-0002

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400° F — Less than 1 CFM/Lin Ft



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:
   A. Steel Floor Runners — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced 12 in. (305 mm) OC.
   B. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor. The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* Sealant — Max separation between top of floor and bottom of gypsum board wall sheathing is 3/4 in. (19 mm). Min 5/8 in. (16 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 605 Bottom of Wall Firestop Sealant, CP601S Elastomeric Firestop Sealant, CP606 Flexible Firestop Sealant, CFS-S SIL GG, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

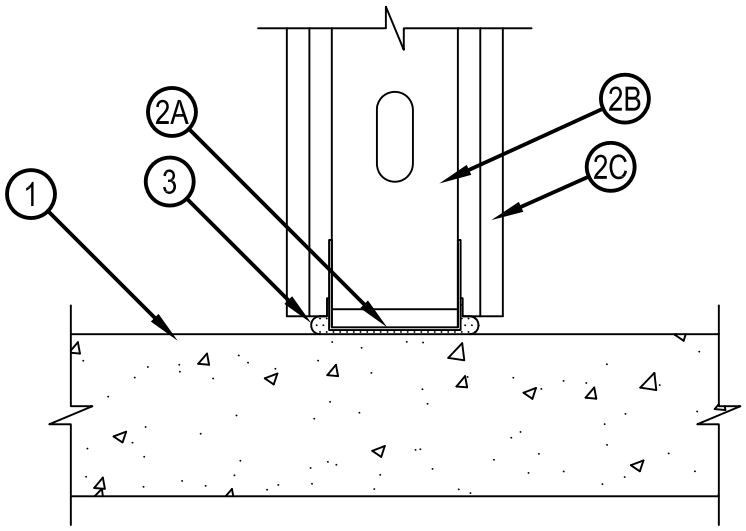
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

System No. BW-S-0039

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1.55 L/s/lin m
	L Rating at 400° F — Less than 1.55 L/s/lin m



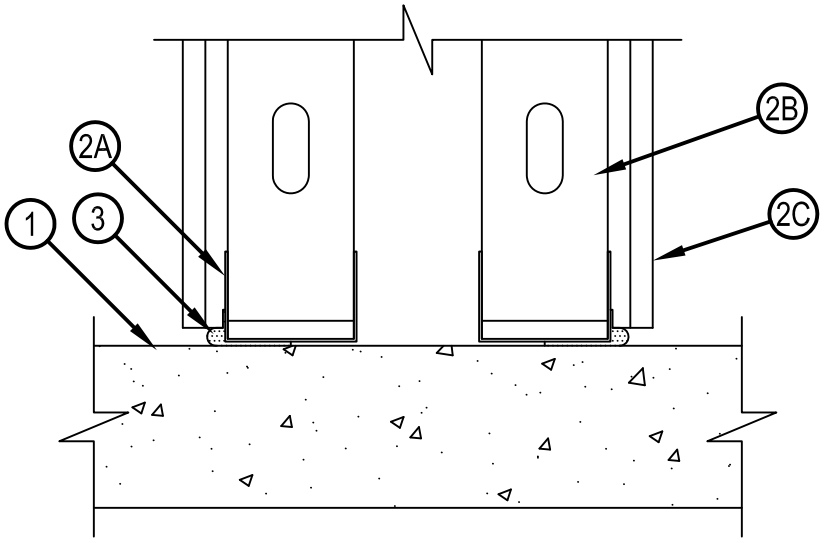
1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:
   A. Steel Floor Runners — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced 12 in. (305 mm) OC.
   B. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor.
   The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* — Bottom Track Seal — Max separation between the bottom of floor and bottom of wall is 3/4 in. (19 mm). Factory supplied foam seal installed under the floor runners (Item 2A) prior to attachment to top side of concrete floor in accordance with the installation instructions.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS 358, CFS-TTS 600 or CFS-TTS-OS

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

System No. BW-S-0040

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
Nominal Joint Width - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400° F — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	Nominal Joint Width - 3/4 In.
	L Rating at Ambient — Less than 1.55 L/s/lin m
	L Rating at 400° F — Less than 1.55 L/s/lin m



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud chase (double stud) wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor Runners — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced 12 in. (305 mm) OC.
   B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design in the UL Fire Resistance Directory, except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor.
   The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.
3. Fill, Void or Cavity Material* — Bottom Track Seal — Max separation between the bottom of floor and bottom of wall is 3/4 in. (19 mm). Factory supplied foam seal installed under the floor runners (Item 2A) prior to attachment to top side of concrete floor in accordance with the installation instructions.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS 358, CFS-TTS 600 or CFS-TTS-OS

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Firestop Gun Grade Silicone Sealant CFS-S SIL GG

Product description

- A silicone based firestop sealant that provides maximum movement in fire-rated joints, and seals through-penetration applications

Product features

- Halogen and solvent free
- Asbestos free
- Simple to use and apply
- Good adhesion without use of a primer
- Smoke, fume, water and UV resistant
- Excellent movement capability, meets 500 cycle requirements (ASTM E 1966 and UL 2079)
- Meets Class I W-rating requirements
- Meets LEED™ requirements for indoor environmental quality credit 4.1 Low Emitting Materials, Sealants and Adhesives and 4.2 Paints and Coatings

Areas of application

- Sealing construction/expansion joints
- Top-of-wall joints
- Metal pipes
- Cable bundles
- HVAC penetrations

For use with

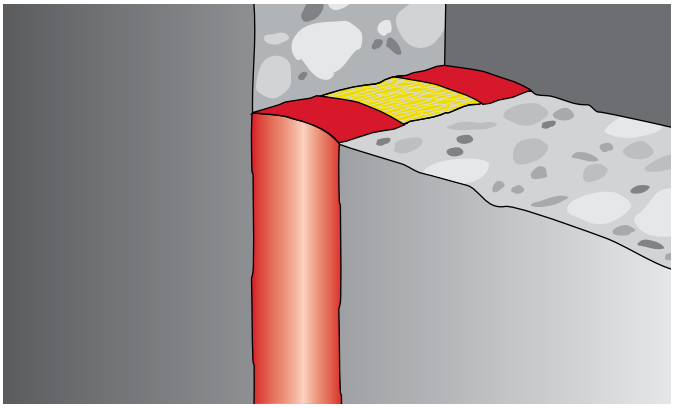
- Various base materials such as masonry, concrete, metal, etc.
- Wall and floor assemblies rated up to 4 hours

Examples

- Where a gypsum wall assembly meets the underside of a metal or concrete deck
- Sealing expansion joints to impede the passage of fire, smoke and toxic fumes
- Sealing around penetrations through fire-rated assemblies

Installation instructions

- Refer to what is included in the package, the MSDS, and the applicable listing.



Technical Data*	CFS-S SIL GG
Chemical basis	Neutral elastic silicone
Density	Approx. 1.4 g/cm³
Color	Available in red, white, and gray
Application temperature	40°F to 104°F (5°C to 40°C)
Skin-forming time	Approx. 15 min.
Curing time	Approx. 2 mm / 3 days
Volume shrinkage	Approx. 0 – 5%
Movement capability (UL 2079)	Approx. 33%
Temperature resistance	–40°F to 300°F (–40°C to 149°C)
Surface burning characteristics (ASTM E84-12)	Flame spread: 0 Smoke development: 25
Sound transmission classification (ASTM E 90-09)	59 (Relates to specific construction)
Tested in accordance with	UL 2079 ASTM E 814 ASTM E 1966 ASTM C 920 UL 1479 ASTM E 84 ASTM G21

*At 73°F (23°C) and 50% relative humidity

CLASSIFIED C UL US
FILL, VOID OR CAVITY MATERIAL FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS AND JOINT SYSTEMS SEE UL FIRE RESISTANCE DIRECTORY 5BP5

FM APPROVED

FBC SYSTEM COMPATIBLE
Visit fbcsystemcompatible.com. FBC™ is a trademark of the Lubrizol Corporation.

W rated SYSTEMS AVAILABLE

CERTIFICATE OF COMPLIANCE

Certificate Number	20131115-R13240
Report Reference	R13240
Issue Date	2013-November-15

Issued to: Hilti Construction Chemicals, Div of Hilti Inc.
5400 S 122nd East Ave
Tulsa, OK 74146

This is to certify that representative samples of Fill, Void or Cavity Materials
Fill, Void or Cavity Materials Certified for Canada CFS-S SIL GG and CFS-S SIL SL for use in Through-Penetration Firestop and Joint Systems in the UL Fire Resistance Directory and in the Products Certified for Canada Directory.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 1479, "Fire Tests of Through-Penetration Firestops," – Edition 3 – Revision Date 2012/10/19
ANSI/UL 2079, "Tests for Fire Resistance of Building Joint Systems," – Edition 4 – Revision Date 2012/12/12
CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems." – Edition 4 – Issue Date 2011/06/01

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Classification Mark should be considered as being covered by UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle: with the word "CLASSIFIED" (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and the product category name (product identity) as indicated in the appropriate UL Directory.

Look for the UL Classification Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

Safety Data Sheet
acc. to ISO 11014

Printing date 05/19/2015 **Version number 3** **Reviewed on 05/19/2015**

*

1 Identification

· **Product identifier**

· **Trade name:** **Hilti Firestop Sealant CFS-S SIL GG**
Hilti Firestop Sealant CFS-S SIL SL
· **Relevant identified uses of the substance or mixture and uses advised against**
· **Sector of Use** Building and construction work
· **Application of the substance / the mixture**
Assembly foam
Construction chemicals

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Hilti, Inc.
5400 South 122nd East Ave.
US-Tulsa, OK 74146
Phone: (800) 879-8000
Fax: (800) 879-7000
Español: (800) 879-5000

· **Information department:**
chemicals.hse@hilti.com
see section 16
· **Emergency telephone number:**
Chem-Trec
Tel.: 1 800 424 9300
Tox Info Suisse - 24 h Service
Tel.: 0041 / 44 251 51 51 (international)
.

*

2 Hazard(s) identification

· **Classification of the substance or mixture**

Skin Sens. 1	H317	May cause an allergic skin reaction.
Repr. 2	H361	Suspected of damaging fertility or the unborn child.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
Methyl-tris(methylethylketoximo)-silan
3-aminopropyltriethoxysilane
· **Hazard statements**
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
· **Precautionary statements**
P261 Avoid breathing vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 If on skin: Wash with plenty of water.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
· **Classification system**
· **NFPA ratings (scale 0-4)**

Health = 2
Fire = 1
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

· **Additional information:**
In use the product releases 2-butanone oxime (methyl ethyl ketoxime; MEKO) (<4%) which vaporises.
In cases of prolonged exposure MEKO may damage nasal membranes. If MEKO is inhaled in large quantities over prolonged periods of time there may be irreversible damage to health:
H351: Suspected of causing cancer.

US

(Contd. on page 2)

Safety Data Sheet
acc. to ISO 11014

Printing date 05/19/2015 **Version number 3** **Reviewed on 05/19/2015**

(Contd. of page 1)

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:**

Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
22984-54-9	Methyl-tris(methylethylketoximo)-silan	2-5%
919-30-2	3-aminopropyltriethoxysilane	<2.5%
556-67-2	octamethylcyclotetrasiloxane	0.1-1%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

*
4 First-aid measures

· **Description of first aid measures**
· **General information** Immediately remove any clothing soiled by the product.
· **After inhalation** Take affected persons into fresh air and keep quiet.
· **After skin contact** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing** Do not induce vomiting; immediately call for medical help.
· **Information for doctor**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents** Water with full jet.
· **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Carbon monoxide (CO)
Carbondioxide (CO2)
In certain fire conditions, traces of other toxic gases cannot be excluded.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Ensure adequate ventilation

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
· **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

*
7 Handling and storage

· **Handling**
· **Precautions for safe handling**
The usual precautionary measures for handling chemicals should be followed.
Use only in well ventilated areas.
Do not inhale the vapours released during application.
Keep away from heat and direct sunlight.
· **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

· **Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** Keep in a cool, dry and dark place; 41 °F / 5 °C to 77 °F / 25 °C.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.

· **Storage class** 11
· **Specific end use(s)** No further relevant information available.

US

(Contd. on page 3)

Safety Data Sheet
acc. to ISO 11014

Printing date 05/19/2015 **Version number 3** **Reviewed on 05/19/2015**

(Contd. of page 2)

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8 Exposure controls/personal protection

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **CAS No. Designation of material % Type Value Unit**

· **Additional Occupational Exposure Limit Values for possible hazards during processing:**	
96-29-7 Methylethylketoxime (MEKO) (<4%)	
WEEL	Long-term value: 10 ppm DSEN

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Do not eat, drink, smoke or sniff while working.
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.
· **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A
· **Recommended filter device for short term use:**
The use of an OSHA or NIOSH approved mask for dust and mist environment is recommended.
· **Protection of hands:**

Protective gloves.

EN 374
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Tightly sealed goggles.

EN 166 + EN 170
· **Body protection:**

Protective work clothing.

*
9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Pasty
Color:	red / white
· **Odor:**	Odorless
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined
· **Change in condition**	
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	Not determined
· **Flash point:**	211 °C (412 °F) (DIN 53213)
· **Flammability (solid, gaseous)**	Not determined.

(Contd. on page 4)

(Contd. of page 3)

· **Ignition temperature:**	370 °C (698 °F)
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not applicable.
· **Density at 20 °C (68 °F):**	1.38 g/cm³ (11.516 lbs/gal) (DIN 51757)
· **Relative density**	Not determined.
· **Vapour density**	Not applicable.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Insoluble
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
dynamic:	Not determined
kinematic:	Not determined
· **Other information**	CFS-S SIL GG - VOC Content: 48 g/l (EPA Method 24) CFS-S SIL SL - VOC Content: 50 g/l (EPA Method 24)

10 Stability and reactivity

· **Reactivity**
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known
· **Conditions to avoid** Protect from humidity and water.
· **Incompatible materials:**
strong oxidizing agents
acids
Alkaline hydroxides
water
· **Hazardous decomposition products:** No dangerous decomposition products known

*

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
22984-54-9 Methyl-tris(methylethylketoximo)-silan		
Oral	LD50	2000-3000 mg/kg (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Strong irritant with the danger of severe eye injury.
· **Sensitization:** Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

· **NTP (National Toxicology Program)**
None of the ingredients is listed

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.

(Contd. on page 5)

(Contd. of page 4)

· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

*
13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.

· **European waste catalogue:**	
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances

· **Uncleaned packagings:**
· **Recommendation:**
Dispose of packaging according to regulations on the disposal of packagings.
Non contaminated packagings can be reused.

14 Transport information

· **UN-Number** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **UN proper shipping name** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **Transport hazard class(es)** · **DOT, ADR, ADN, IMDG, IATA** · **Class**	Void
· **Packing group** · **DOT, ADR, IMDG, IATA**	Void
· **Environmental hazards:** · **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	-

*
15 Regulatory information

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

· **Section 355 (Extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65:**

· **Chemicals known to cause cancer:**
None of the ingredients are listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **National regulations**

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
· **Chemical safety assessment:** not required.

US

(Contd. on page 6)

Safety Data Sheet
acc. to ISO 11014

(Contd. of page 5)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**
Hilti Corporation
Business Unit Chemicals
Quality/Safety/Environment
FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com
Tel.: +423 234 3004
FAX.: +423 234 3462

· **Date of preparation / last revision** 05/19/2015 / 2

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Repr. 2: Reproductive toxicity, Hazard Category 2

· *** Data compared to the previous version altered.**

US

August 26, 2015

To Whom It May Concern:

Re: **Hilti CFS-S SIL GG Firestop Sealant - LEED Information**

Item Numbers:

2076729
2076881
2076882
2076883
2077322

The Hilti CFS-S SIL GG Firestop Sealant is manufactured in Toronto, Ontario.

There is no post-consumer or post-industrial content in CFS-S SIL GG and it cannot be recycled. The CFS-S SIL GG does not contain any Rapidly Renewable Materials. The VOC content for CFS-S SIL GG is 48.0 grams/liter.

CFS-S SIL GG is not regulated as a hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Sr. Manager, Safety/Environmental
Hilti Inc.
918 872 3704
jerry.metcalf@hilti.com

Rev. Date: 8/14/15

The manufacturing plant location on this certificate has been provided for LEEDS reporting purposes only. It should never be used for Country of Origin certification or a representation of compliance/non-compliance with Buy American or Buy America requirements, as those requirements differ.

The manufacturing plant location(s) identified on the certificate represent standard Hilti catalog products only. “Specially” produced non-catalog Hilti products may have differing manufacturing plant locations.

Contact your Hilti representative in cases of “specially” produced products for a custom LEEDS certificates.

Firestop top track seal CFS-TTS

Product description

CFS-TTS is a pre-formed firestop device designed to be a versatile, once and done solution for fire rated assemblies on flat concrete construction. Simply install with the top track to achieve a durable and reliable system tested in accordance with UL2079 5th edition.

Applications for use

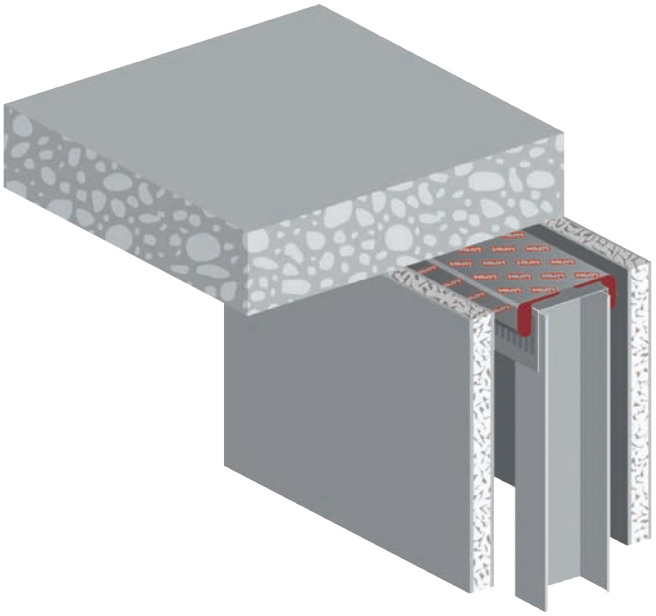
- Firestop, smoke and sound seal for head-of -wall joints between top track and gypsum to flat concrete slabs
- CFS-TTS 358/600 is designed for a perfect friction fit with common track sizes — 3-5/8" and 6"

Advantages

- Fast installation — fewer working steps (once and done)
- Excellent sealing properties designed for reliability under real jobsite conditions (STC and smoke seal on imperfect concrete)
- Tested in accordance with the most up-to-date standard; UL 2079 5th edition
- No mess, zero waste — no caulking or tools required
- Simple — ideal shape designed to saddle over top track without additional folding, taping or gluing

Installation instructions

- See Hilti Literature or third-party listings for complete application and installation details



Technical data	
Chemical basis	Polyurethane foam
Color	Silver/Red
Application temperature range	23° to 104°F
Storage and transportation temperature range	14° to 104°F
Movement	Approx. ±50%
Temperature resistance range	23° to 104°F
Mold and mildew performance	Class 0 (ASTM G21-96) and Class 0 (EN ISO 846)
Surface burning characteristics UL 723 (ASTM E84)	Flame spread: 20 Smoke development: 20
Approvals	UL 2079
California State fire marshal approval	Yes
LEED VOC	0.16 lb/gal (US)
Acoustics performance	Test report available

Order Designation	Color	Sales pack quantity	Item number
Firestop top track seal CFS-TTS 358	Silver/Red	1 pc	**2128716**

03/16 DBS

CERTIFICATE OF COMPLIANCE

Certificate Number	20151202-R13240
Report Reference	R13240-20151130
Issue Date	2015-DECEMBER-02
Issued to:	HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC 5400 S 122ND EAST AVE TULSA OK 74146
This is to certify that representative samples of	FILL, VOID OR CAVITY MATERIALS USC, CNC Top Track Seal CFS-TTS intended for use in Joint Systems. Model designation may include a suffix “358” or “600” or “OS”. Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	ANSI/UL 2079-Tests for Fire Resistance of Building Joint Systems CAN/ULC S115-Standard Method of Fire Tests of Firestop Systems
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

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

· **Product identifier**
· **Trade name:**

Hilti Firestop Block CFS-BL / CFS-BL P
Hilti Firestop Plug CFS-PL
Hilti Firestop Cable Collar CFS-CC / CFS-RCC / CFS-RCC EXT
Hilti Firestop Module Box CFS-MB
Hilti Firestop Cushion CFS-CU
Hilti Firestop Board CP 675
Hilti Firestop Speed Sleeve CFS-SL
Hilti Firestop Retrofit Sleeve CFS-SL RK
Hilti Firestop Sleeve Kit CFS-SL SK
Hilti Firestop Gangplate CFS-SL GP
Hilti Firestop Cable Module CFS-T
Hilti Firestop Filler Module CFS-T FB
Hilti Firestop Plug Seal CFS-T RR
Hilti Firestop Plug Seal CFS-T RRS
Hilti Firestop Wedge Seal CFS-T WD120
Hilti Firestop Cast-In Device CFS-CID
Hilti Firestop Drop-In Device CFS-DID
Hilti Foil Tapes CS-FT all
Hilti Multifunctional Tapes CS-MFT all
Hilti Joint Sealing Tapes CS-JST all
Hilti Firestop Top Track Seal CFS-TTS
CP 651N
CP 653
CP 657
CP 658
CP 680
CP 681

· **Application of the substance / the preparation:** Construction chemicals

Refer to Hilti product literature, technical data sheets, 3rd party published listings and national approvals for specific application information. For more details please contact your local Hilti organization through http://www.hilti.com.

· **Manufacturer/Supplier:**

Hilti AG
Feldkircherstr. 100
Postfach 333
FL-9494 Schaan
Liechtenstein

Customer Service
Phone +423 (0)844 84 84 85
Fax +423 (0)844 84 84 86

2 Other information

A Material Safety Data Sheet is not required due to the classification of these products as “articles” according to Regulation (EC) No. 1907/2006 of 18 December 2006 / 29CFR 1910.1200 (U.S.A.). Consequently, these products are exempted from CLP / OSHA Labeling and MSDS requirements.

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Informing department:**

chemicals.hse@hilti.com
Tel.: +423 234 3004
FAX.: +423 234 3462

April 20, 2016

To Whom It May Concern:

Re: Hilti CFS-TTS Firestop Top Track Seal – LEED Info.

Item Number:

2128714
2128716
2128717

The CFS-TTS is manufactured in Germany.

There is no post-consumer or post-industrial content in CFS-TTS and it cannot be recycled. The CFS-TTS does not contain any Rapidly Renewable Materials. The VOC content for CFS-TTS is 22 grams/liter.

CFS-TTS is not regulated as a hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Sr. Mgr. Safety/Environmental
Hilti Inc.
918 872 3704
jerry.metcalf@hilti.com

Rev. Date: 4/20/16

The manufacturing plant location on this certificate has been provided for LEEDS reporting purposes only. It should never be used for Country of Origin certification or a representation of compliance/non-compliance with Buy American or Buy America requirements, as those requirements differ.

The manufacturing plant location(s) identified on the certificate represent standard Hilti catalog products only. “Specially” produced non-catalog Hilti products may have differing manufacturing plant locations.

Contact your Hilti representative in cases of “specially” produced products for a custom LEEDS certificates

Bottom-of-wall firestop sealant CP 605

Product description

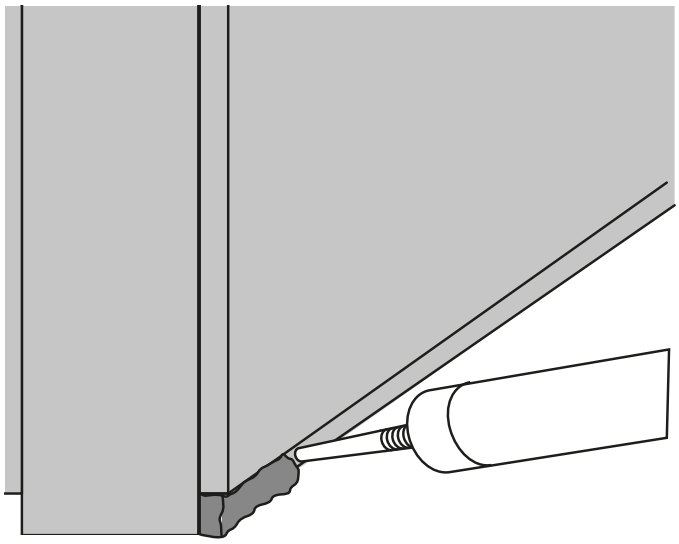
- Sealing bottom-of-wall joints in approved fire-rated assemblies

Product features

- Applications requiring excellent smoke resistance and sound attenuation properties
- Helps protect bottom-of-wall joints in approved 1 hr and 2 hr rated assemblies
- Excellent airborne sound insulation properties

Installation instructions

- See Hilti Literature or third-party listings for complete application and installation details



Technical data	
Chemical basis	Water-based acrylic dispersion
Approx. density	93.6 lb/ft³
Color	White
Application temperature range	40 - 104 °F
Approx. cure time[1)]	3 mm/3 days
Movement	No
Temperature resistance range	-4 - 176 °F
Mold and mildew performance	Class 1 (ASTM G21-96)
Mold and mildew resistant	Yes
Surface burning characteristics UL 723 (ASTM E84)	Flame spread: 5 Smoke development: 10
STC rating	64 (per construction type)

1) at 75°F/24°C, 50% relative humidity

Order Designation	Quantity / unit	Item number
Bottom of Wall Sealant CP 605 580ml	20 foil / box	**2123410**

08/15 DBS

Safety Data Sheet
acc. to ISO 11014

Printing date 08/04/2015 Version number 4 Reviewed on 08/04/2015

*
1 Identification

· **Product identifier**

· **Trade name: CP 605**
· **Relevant identified uses of the substance or mixture and uses advised against**
· **Sector of Use** Building and construction work
· **Application of the substance / the mixture** Construction chemicals

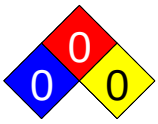
· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Hilti, Inc.
5400 South 122nd East Ave.
US-Tulsa, OK 74146
Phone: (800) 879-8000
Fax: (800) 879-7000
Español: (800) 879-5000

· **Information department:**
chemicals.hse@hilti.com
see section 16
· **Emergency telephone number:**
Tox Info Suisse - 24 h Service
Tel.: 0041 / 44 251 51 51 (international)
.
Chem-Trec
Tel.: 1 800 424 9300

*
2 Hazard(s) identification

· **Classification of the substance or mixture** The product is not classified according to the Globally Harmonized System (GHS).

· **Label elements**
· **GHS label elements** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Classification system**
· **NFPA ratings (scale 0-4)**



Health = 0
Fire = 0
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

*
3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:**

Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
56-81-5	glycerol	<2.5%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

*
4 First-aid measures

· **Description of first aid measures**
· **General information** No special measures required.
· **After inhalation** Take affected persons into fresh air and keep quiet.
· **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· **After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing** Seek immediate medical advice.
· **Information for doctor**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

US

(Contd. on page 2)

Safety Data Sheet
acc. to ISO 11014

Printing date 08/04/2015 **Version number 4** **Reviewed on 08/04/2015**

(Contd. of page 1)

*
5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** Ensure adequate ventilation

*
6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
· **Environmental precautions:** Do not allow product to reach sewage system or any water course.
· **Methods and material for containment and cleaning up:** Pick up mechanically.
· **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

*
7 Handling and storage

· **Handling**
· **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** keep containers securely closed and dry, store at 5 - 25 °C / 41 - 77 °F
· **Information about storage in one common storage facility:** Store away from foodstuffs.
· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

· **Storage class** 10
· **Specific end use(s)** No further relevant information available.

*
8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
· **Breathing equipment:** Not necessary if room is well-ventilated.
· **Protection of hands:**

Protective gloves.

EN 374
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· **Material of gloves** Nitrile rubber, NBR
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Tightly sealed goggles.

EN 166 + EN 170

(Contd. on page 3)

Safety Data Sheet
acc. to ISO 11014

(Contd. of page 2)

· **Body protection:**

Protective work clothing.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Pasty
Color:	According to product specification
· **Odor:**	Characteristic
· **Odour threshold:**	Not determined
· **pH-value:**	Not applicable
· **Change in condition**	
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	undetermined
· **Flash point:**	Not applicable
· **Flammability (solid, gaseous)**	Not determined
· **Ignition temperature:**	Not applicable
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined
Upper:	Not determined
· **Vapor pressure:**	Not determined
· **Density:**	Not determined
· **Relative density**	Not determined
· **Vapour density**	Not determined
· **Evaporation rate**	Not determined
· **Solubility in / Miscibility with**	
Water:	. Not miscible or difficult to mix
· **Partition coefficient (n-octanol/water):**	Not determined
· **Viscosity:**	
dynamic:	Not determined
kinematic:	Not determined
· **Other information**	VOC Content: 57 g/l (EPA Method 24)

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known

*

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

(Contd. on page 4)

(Contd. of page 3)

· **NTP (National Toxicology Program)**
None of the ingredients is listed

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:** Not determined
· **Additional ecological information:**
· **General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

*

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation** Smaller quantities can be disposed of with household waste.

· **Uncleaned packagings:**
· **Recommendation:**
Dispose of packaging according to regulations on the disposal of packagings.
Empty packs: May be disposed via the local Green Dot collecting system or EAK waste material code 150102 (plastic packaging materials)

14 Transport information

· **UN-Number** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **UN proper shipping name** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **Transport hazard class(es)** · **DOT, ADR, ADN, IMDG, IATA** · **Class**	Void
· **Packing group** · **DOT, ADR, IMDG, IATA**	Void
· **Environmental hazards:** · **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	Not dangerous according to the above specifications.
· **UN "Model Regulation":**	Void

*

15 Regulatory information

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

· **Section 355 (Extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65:**

· **Chemicals known to cause cancer:**
None of the ingredients are listed.

(Contd. on page 5)

Safety Data Sheet
acc. to ISO 11014

(Contd. of page 4)

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **Chemical safety assessment:** not required.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**
Hilti Corporation
Business Unit Chemicals
Quality/Safety/Environment
FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com
Tel.: +423 234 3004
FAX.: +423 234 3462

· **Date of preparation / last revision** 08/04/2015 / 3

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

US

October 26, 2015

To Whom It May Concern:

Re: **Hilti CP 605 Bottom of Wall Sealant – LEED Information**

Item Number:

2123410

The Hilti CP 605 Bottom of Wall Sealant is manufactured in Kaufering, Germany.

There is no post-consumer or post-industrial content in CP 605 and it cannot be recycled.
The CP 605 does not contain any Rapidly Renewable Materials.

The VOC content for CP 605 is 36 g/l.

CP 605 is not regulated as hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Sr. Manager, Safety/Environmental
Hilti Inc.
918 872 3704
jerry.metcalf@hilti.com

Rev. Date: 10/26/15

The manufacturing plant location on this certificate has been provided for LEEDS reporting purposes only. It should never be used for Country of Origin certification or a representation of compliance/non-compliance with Buy American or Buy America requirements, as those requirements differ.

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Contact your Hilti representative in cases of “specially” produced products for a custom LEEDS certificates.

Hilti, Inc.
5400 South 122nd East Avenue
Tulsa, OK 74146

1-800-879-8000
www.hilti.com

Flexible Firestop Sealant (CP 606)

Product description

- An acrylic based firestop sealant that provides movement capability in fire rated joints and seals through-penetrations applications

Product features

- Silicone free
- Halogen, asbestos and solvent free
- Paintable
- Tested up to 33% movement with 500 cycles in accordance to UL 2079 and ASTM 1966
- Smoke and fume resistant
- Easy clean up with water
- Single component systems available
- Meets LEED™ requirements for indoor environmental quality credit 4.1 Low Emitting Materials, Sealants and Adhesives and 4.2 Paints and Coatings

Areas of application

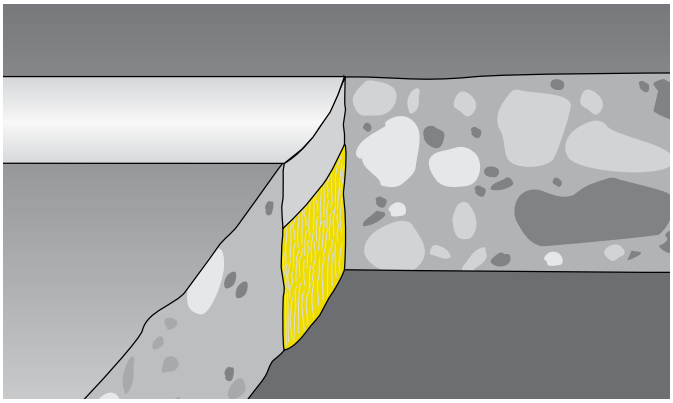
- Sealing construction/expansion joints
- Top-of-wall joints
- Metal pipes
- Cable bundles
- HVAC penetrations

For use with

- Various base materials such as masonry, concrete, gypsum, etc.
- Wall and floor assemblies rated up to 3 hours

Examples

- Where a gypsum wall assembly meets the underside of a metal or concrete deck
- Sealing expansion joints to impede the passage of fire, smoke and toxic fumes
- Sealing around HVAC penetrations through fire-rated assemblies



Technical Data*	CP 606
Chemical basis	Acrylic based firestop sealant
Color	Available in red, white and gray
Application temperature	40°F to 104°F (5°C to 40°C)
Skin-forming time	Approx. 15 min
Curing time	Approx. 3 mm / 3 days
Average volume shrinkage (ASTM C1241)	22.2%
Movement capability	Approx. 10%
Temperature resistance	–22°F to 176°F (–30°C to 80°C)
Surface burning characteristics (ASTM E 84-96)	Flame Spread: 10 Smoke Development: 0
Sound transmission classification (ASTM E 90-99)	56 (Relates to specific construction)
Tested in accordance with • UL 2079 • ASTM E 84 • ASTM E 814 • UL 1479 • ASTM E 1966 • ASTM G21	

*At 73°F (23°C) and 50% relative humidity

CLASSIFIED C UL US
FILL, VOID OR CAVITY MATERIAL
FOR USE IN THROUGH-PENETRATION
FIRESTOP SYSTEMS AND
JOINT SYSTEMS
SEE UL FIRE RESISTANCE DIRECTORY
66Y7

FM APPROVED

Installation instructions for CP 606

Notice

- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information
- The use of backing material is recommended to control the sealant depth and help ensure assembly seal is complete

Opening

1. Clean the opening. Surfaces to which CP 606 will be applied should be cleaned of loose debris, dirt, oil, wax and grease. The surface should be moisture and frost free.

Application of firestop

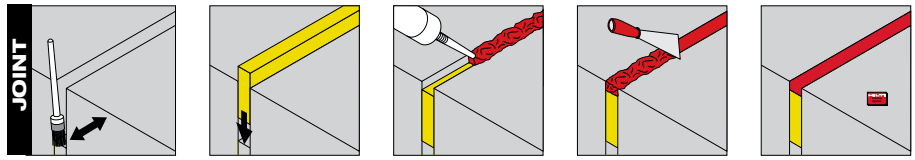
2. Insert fill of mineral wool or backer (as required).
3. Apply firestop over backer.
4. Smooth firestop sealant with a trowel before the skin forms. Once cured, CP 606 can only be removed mechanically.
5. For maintenance reasons, a penetration seal can be permanently marked with an identification plate and fastened in a visible position next to the seal.

Not for use

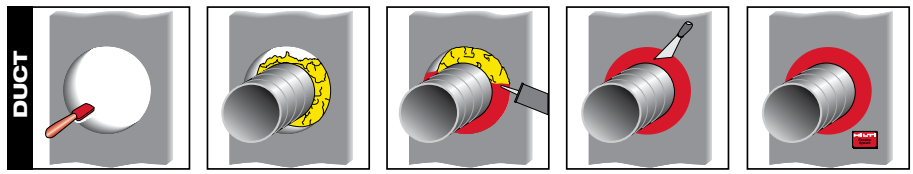
- On areas immersed in water

Storage

- Store only in the original packaging in a location protected from moisture at a temperature of 40°F to 77°F (5°C to 25°C)
- Observe expiration date on package



1. Clean opening | 2. Insert backing material compressed per UL System | 3. Apply CP 606 | 4. Smooth CP 606 | 5. Fasten identification plate (if required)



1. Clean opening | 2. Insert backing material | 3. Apply CP 606 | 4. Smooth CP 606 | 5. Fasten identification plate (if required)

CERTIFICATE OF COMPLIANCE

Certificate Number	20160930-R13240
Report Reference	R13240
Issue Date	2016-September-30
Issued to:	Hilti Construction Chemicals, Div of Hilti Inc. 5400 S 122nd East Ave Tulsa, OK 74146
This is to certify that representative samples of	Fill, Void or Cavity Materials Fill, Void or Cavity Materials Certified for Canada CP 606 Sealant for use in Through-Penetration Firestop, Joint in wall and partition Systems as currently decribed in the UL Fire Resistance Directory and in the Products Certified for Canada Directory.
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	ANSI/UL 1479, "Fire Tests of Through-Penetration Firestops," ANSI/UL 2079, "Tests for Fire Resistance of Building Joint Systems," CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems."
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

Date of issue: 01/07/2016 Revision date: 01/07/2016 Supersedes: 01/07/2016 Version: 4.2

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Name	Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606
Product code	BU Chemicals
Chemical structure	

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

No additional information available

1.3. Details of the supplier of the safety data sheet

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

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

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

1.4. Emergency telephone number

Emergency number

Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)

+1 918 8723000
1-800-879-8000 toll free

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Get medical advice/attention if you feel unwell.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Protection during firefighting	Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

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

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Recover mechanically the product.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment.
Hygiene measures	Wash contaminated clothing before reuse. 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

Storage conditions	Keep cool. Store in a dry place.
Storage temperature	41 - 77 °F

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment: Protective clothing. Safety glasses. Gloves.

Hand protection	Protective gloves. EN 374.
Eye protection	Safety glasses. EN 166. EN 170.
Skin and body protection	Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Pasty.
Colour	red white Grey
Odour	characteristic
Odour threshold	Not determined
pH	≈ 9 Not applicable
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available
Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	1.6 g/cm³
Molecular mass	Not determined
Solubility	No data available

Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Not classified
Skin corrosion/irritation	Not classified pH: ≈ 9 Not applicable
Serious eye damage/irritation	Not classified pH: ≈ 9 Not applicable
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming	No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR)	Not applicable
Proper Shipping Name (IMDG)	Not applicable
Proper Shipping Name (IATA)	Not applicable
Proper Shipping Name (ADN)	Not applicable
Proper Shipping Name (RID)	Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	Not applicable

IMDG

Transport hazard class(es) (IMDG)	Not applicable

IATA

Transport hazard class(es) (IATA)	Not applicable

ADN

Transport hazard class(es) (ADN)	Not applicable

RID

Transport hazard class(es) (RID)	Not applicable

14.4. Packing group

Packing group (ADR)	Not applicable
Packing group (IMDG)	Not applicable
Packing group (IATA)	Not applicable
Packing group (ADN)	Not applicable
Packing group (RID)	Not applicable

14.5. Environmental hazards

Dangerous for the environment	No
Marine pollutant	No
Other information	No supplementary information available

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

Carriage prohibited (ADN)	No
Not subject to ADN	No

- Rail transport

Carriage prohibited (RID)	No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

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

Not classified

National regulations

No additional information available

15.3. US State regulations

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

Revision date	01/07/2016
HMIS III Rating	
Health	0 Minimal Hazard - No significant risk to health
Flammability	0 Minimal Hazard - Materials that will not burn
Physical	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal Protection	B
	B - Safety glasses, Gloves

SDS_US_Hilti

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

February 26, 2010

To Whom It May Concern:

Re: Hilti CP 606 Flexible Firestop – LEEDs Info.

The Hilti CP 606 Flexible Firestop Sealant is manufactured in Germany.

The CP 606 pail is made of polyethylene and can be completely recycled. There is no post-consumer or post-industrial content in CP 606 and it cannot be recycled. The CP 606 does not contain any Rapidly Renewable Materials. The VOC content for CP 606 is 71.0 grams/liter.

CP 606 is not regulated as a hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Safety/Environmental Manager
Hilti Inc.
918 872 3704
jerry.metcalf@hilti.com

Rev. Date: 2/26/10

Hilti, Inc.
5400 South 122nd East Avenue
Tulsa, OK 74146

1-800-879-8000
www.hilti.com

High-performance intumescent firestop sealant FS-ONE MAX

Applications

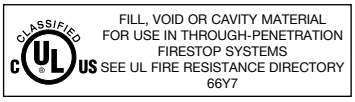
- For effectively sealing most common through penetrations in a variety of base materials
- For use on concrete, masonry and drywall
- Mixed and multiple penetrations
- Metal pipe penetrations: copper, steel and EMT
- Insulated metal pipe penetrations: steel and copper
- Plastic pipe penetrations: closed or vented

Advantages

- US-produced: “Buy American” compliant
- One product for a variety of common through penetrations
- Cost-effective, easy-to-use solution
- Water-based and paintable
- Industry-leading VOC results
- Ethylene glycol-free

Chemical resistant

Mold and mildew resistant



Technical data	
Chemical basis	Water-based acrylic dispersion
Approx. Density	84.3 lb/ft³
Color	Red
Application temperature range	41 - 104 °F
Approx. cure time[1)]	4 mm/3 days
Temperature resistance range	-4 to 212 °F
Mold and mildew performance	Class 0 (ASTM G21-96)
Mold and mildew resistance	Yes
Surface burning characteristics UL 723 (ASTM E84)	Flame spread: 0 Smoke development: 10
Tested in accordance with	UL 1479, ASTM E814, ASTM E84, CAN/ ULC-S115, ASTM G21, ASTM E90
California State fire marshal approval	CSFM Listing 4485-1200:0108 for FS-ONE MAX Intumescent Firestop Sealant
Expansion ratio (unrestricted, up to)	1:5

[1)] at 75°F/24°C, 50% relative humidity

Order Designation	Package Content	Item number
FS-ONE MAX 20oz foil (3 case + disp)	1x Foil pack dispenser manual CS 270-P1, 75x Firestop sealant FS-ONE MAX 20 oz foil	**3530252**
FS-ONE MAX 10oz tube (1 case)	12x Firestop sealant FS-ONE MAX 10 oz cartridge	**3530249**
FS-ONE MAX 5 gallon (18 pails)	18x Firestop sealant FS-ONE MAX 5 gallon pail	**3530263**
FS-ONE MAX 20oz foil (1 case)	25x Firestop sealant FS-ONE MAX 20 oz foil	**3530250**
FS-ONE MAX 20oz foil (3 cases)	75x Firestop sealant FS-ONE MAX 20 oz foil	**3530251**
FS-ONE MAX 20oz Foil-Pallet	600x FSONE-MAX 20 oz foil, 290x Bulk Shipping Condition	**3534713**
FS-ONE MAX 10 oz cartridge		**2101531**
FS-ONE MAX 5 gallon pail		**2101533**

12/16 DBS

Date: June 22, 2015

Subject: **Buy American Certification**

Product: Firestop sealant FS-ONE MAX 10.1OZ Cartridge (Item #2101531)
Firestop sealant FS-ONE MAX 20.0OZ Foil (Item #2101532)
Firestop sealant FS-ONE MAX 5GAL Pail (Item #2101533)

To Whom it May Concern:

Hilti, Inc. certifies that the above referenced product(s) as described on the Purchase Order identified above, is (are) a domestic end product (as defined in FAR Subpart 25.1, "Buy American Act--Supplies"), or satisfies the preference for domestic construction material (as defined in FAR Subpart 25.2, "Buy American Act--Construction Materials").

Sincerely,

Thomas M. Horan, QA Manager

Buyamericanfsonemax.doc

Hilti, Inc.
5400 South 122nd East Avenue
Tulsa, OK 74121 USA

T (918) 872-3000 I F 800-879-7000
www.hilti.com

FS-ONE MAX; Hilti Firestop Filler Mastic CFS-FIL

Safety Data Sheet

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

Date of issue: 12/17/2015 Revision date: 12/17/2015 Supersedes: 12/17/2015 Version: 1.2

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Name	FS-ONE MAX; Hilti Firestop Filler Mastic CFS-FIL
Product code	BU Chemicals
Chemical structure	

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

No additional information available

1.3. Details of the supplier of the safety data sheet

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

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

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

1.4. Emergency telephone number

Emergency number

Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)

+1 918 8723000
1-800-879-8000 toll free

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Quartz	(CAS No) 14808-60-7	2.5 - 5	Carc. 1A, H350

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Get medical advice/attention if you feel unwell.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Protection during firefighting: Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

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

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Recover mechanically the product.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment.
Hygiene measures	Wash contaminated clothing before reuse. 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

Storage conditions	Keep cool. Store in a dry place.
Storage temperature	41 - 77 °F

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Quartz (14808-60-7)		
OSHA	Remark (OSHA)	(3) See Table Z-3.

8.2. Exposure controls

Personal protective equipment: Protective clothing. Safety glasses. Gloves.

Hand protection	Protective gloves. EN 374.
Eye protection	Safety glasses. EN 166. EN 170.
Skin and body protection	Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Pasty.
Colour	red
Odour	characteristic
Odour threshold	Not determined
pH	≈ 7.85
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available
Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	≈ 1.35 g/cm³
Molecular mass	Not determined

Solubility	No data available
Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available

9.2. Other information

VOC content	9 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Not classified
Skin corrosion/irritation	Not classified pH: ≈ 7.85
Serious eye damage/irritation	Not classified pH: ≈ 7.85
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

FS-ONE MAX; Hilti Firestop Filler Mastic CFS-FIL

Safety Data Sheet

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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming	No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR)	Not applicable
Proper Shipping Name (IMDG)	Not applicable
Proper Shipping Name (IATA)	Not applicable
Proper Shipping Name (ADN)	Not applicable
Proper Shipping Name (RID)	Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	Not applicable

IMDG

Transport hazard class(es) (IMDG)	Not applicable

IATA

Transport hazard class(es) (IATA)	Not applicable

ADN

Transport hazard class(es) (ADN)	Not applicable

RID

Transport hazard class(es) (RID)	Not applicable

14.4. Packing group

Packing group (ADR)	Not applicable
Packing group (IMDG)	Not applicable
Packing group (IATA)	Not applicable
Packing group (ADN)	Not applicable
Packing group (RID)	Not applicable

14.5. Environmental hazards

Dangerous for the environment	No
Marine pollutant	No
Other information	No supplementary information available

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

Carriage prohibited (ADN)	No
Not subject to ADN	No

- Rail transport

Carriage prohibited (RID)	No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

FS-ONE MAX; Hilti Firestop Filler Mastic CFS-FIL	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

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

Not classified

National regulations

Quartz (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

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

Revision date 12/17/2015

Full text of H-statements:

Carc. 1A	Carcinogenicity, Category 1A
H350	May cause cancer

HMIS III Rating

Health	0 Minimal Hazard - No significant risk to health
Flammability	0 Minimal Hazard - Materials that will not burn
Physical	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal Protection	B
	B - Safety glasses, Gloves

SDS_US_Hilti

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

August 26, 2015

To Whom It May Concern:

Re: **Hilti FS-ONE Max Firestop – LEED Info**.

Item Numbers:

2101531
2101532
2101533

The Hilti FS-ONE MAX Firestop is manufactured in the United States

There is no post-consumer or post-industrial content in FS-ONE MAX and it cannot be recycled. The VOC content for FS-ONE MAX is 9 grams/liter.

FS-ONE MAX is not regulated as a hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Sr. Manager, Safety/Environmental
Hilti Inc
(918) 872 3704
jerry.metcalf@hilti.com

Rev. Date: 7/31/15

The manufacturing plant location on this certificate has been provided for LEEDS reporting purposes only. It should never be used for Country of Origin certification or a representation of compliance/non-compliance with Buy American or Buy America requirements, as those requirements differ.

The manufacturing plant location(s) identified on the certificate represent standard Hilti catalog products only. “Specially” produced non-catalog Hilti products may have differing manufacturing plant locations.

Contact your Hilti representative in cases of “specially” produced products for a custom LEEDS certificates.

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® FS 1900 Series Firestop Sealant
MSDS Number: Z-01646
Cancelled MSDS Number: Z-01569
MSDS Date: 12/08/2005
Chemical Family Name: Polyvinyl Acetate & Acrylic Latex Based Emulsion
Product Use: Intumescent, Elastomeric Firestop
Chemical Formula: Mixture-NA
CAS # (Chemical Abstracts Service Number): Mixture-NA

Manufactured by:

W.R. Grace & Co.-Conn.
62 Whittemore Avenue
Cambridge, MA 02140

Grace Canada, Inc.
294 Clements Road West
Ajax, Ontario L1S 3C6

In Case of Emergency Call:

In USA: (617) 876-1400 In Canada: (905) 683-8561

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	Percent (max)
2-Propenoic acid, polymer..	052640-81-0	10-20
Dipentaerythritol	000126-58-9	1-5
Graphite	007782-42-5	1-5
Melamine	000108-78-1	1-5
Methenamine	000100-97-0	< 1
Phenol, isopropylated, phosphate (3:1)	068937-41-7	5-10
Phenol-formaldehyde polymer	009003-35-4	1-5
Polyvinyl Acetate Emulsion	NJ801415075P	10-20
Pseudocumene	000095-63-6	< 1
Silicic acid, sodium salt	001344-09-8	5-10
Talc	014807-96-6	1-5
Triphenyl phosphate	000115-86-6	1-5
Zinc borate	001332-07-6	1-5

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!
Causes mild to moderate eye irritation.
Causes respiratory tract irritation.
May be harmful if ingested.
Causes digestive tract irritation if ingested.
Harmful if absorbed through skin.

HMIS Rating:

Health: 2*
Flammability: 0
Reactivity: 0
Personal Protective Equipment: B (See Section 8)

Potential Health Effects:

Inhalation: Causes respiratory tract irritation.
Prolonged inhalation may cause sensitization.
Effects include: Nausea, sneezing, coughing, itching, tightness of chest and wheezing.
Hypersensitive individuals may experience allergic respiratory reaction.

Eye Contact: Eye contact causes mild to moderate irritation.
Skin Contact: Acute skin contact is not expected to cause irritation.
Hypersensitive individuals may develop an allergic reaction resulting in dermatitis, rash or hives.
Skin Absorption: Harmful if absorbed through the skin.
Ingestion: Harmful if ingested.
If ingested, causes irritation to the linings of the mouth, esophagus and stomach.
Effects include the following: No other effects expected unless listed below.
Reproductive and developmental effects have been reported for certain ingredients. Long-term repeated ingestion of small amounts of product may cause a decrease in red blood cells or liver and kidney damage. Phenol-formaldehyde polymer has tested positive as a mutagen.

SECTION 4 - FIRST AID MEASURES:

Skin Contact: Wash with soap and water.
If discomfort or irritation persists, consult a physician.
Remove contaminated clothing and wash before reuse.
Eye Contact: If discomfort or irritation persists, consult a physician.
Flush eyes with water for at least 15 minutes while holding eyelids open.
Ingestion: If discomfort or irritation persists, consult a physician.
Never give anything by mouth to an unconscious person.
Do not induce vomiting.
Inhalation: If symptoms develop, get fresh air. If symptoms persist, consult a physician.
If breathing has stopped, give artificial respiration then oxygen if needed.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Flash Point:	>212°F/100°C
Flash Point Method:	Estimated
Lower Explosion Limit:	Not Available
Upper Explosion Limit:	Not Available
Auto-Ignition Temperature:	Not Available

NFPA Rating:

Health:	1
Flammability:	0
Reactivity:	0

Extinguishing Media: Product will not support combustion. Use alcohol foam, Carbon dioxide, dry chemical or water to treat surrounding fire.
Special Fire Fighting Procedures:
Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapors or products of combustion exist. Isolate area and keep unnecessary people away.
No special procedures specific to this product.
Unusual Fire and Explosion Hazards: During fire, oxides of nitrogen may be evolved.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Spills/Leaks: Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways. Keep unnecessary people away.

SECTION 7 - HANDLING AND STORAGE

Precautionary Measures:
Avoid contact with eyes, skin and clothing.
Do not take internally.
Practice good personal hygiene to avoid ingestion.
Use only with adequate ventilation.
Wash clothing before reuse.
FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

EXPOSURE GUIDELINES (US)

Ingredient	ACGIH TLV			OSHA PEL			Other
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	
2-Propenoic acid, polymer..	-	-	-	-	-	-	-
Dipentaerythritol	-	-	-	-	-	-	-
Graphite	2 mg/m3 TWA (respirable fraction) (all forms except graphite fibers)	-	-	respirable dust: 2.5 mg/m3 TWA	-	-	-
Melamine	-	-	-	-	-	-	-
Methenamine	-	-	-	-	-	-	-
Nitric acid	2 ppm TWA	4 ppm STEL	-	2 ppm TWA; 5 mg/m3 TWA	4 ppm STEL; 10 mg/m3 STEL	-	-
Phenol, isopropylated, phosphate (3:1)	-	-	-	-	-	-	-
Phenol-formaldehyde polymer	-	-	-	-	-	-	-
Polyvinyl Acetate Emulsion	-	-	-	-	-	-	-
Pseudocumene	-	-	-	-	-	-	-
Silicic acid, sodium salt	-	-	-	-	-	-	-
Sulfuric acid	1 mg/m3 TWA	3 mg/m3 STEL	-	1 mg/m3 TWA	-	-	-
Talc	2 mg/m3 TWA (this TLV is for the respirable fraction of dust for Talc	-	-	respirable dust (less than 1% crystalline silica): 2 mg/m3 TWA (Listed under	-	-	-
Triphenyl phosphate	3 mg/m3 TWA	-	-	3 mg/m3 TWA	-	-	-
Zinc borate	-	-	-	-	-	-	-

*Contains formaldehyde below 0.1% threshold. Product is capable of releasing formaldehyde under certain conditions. Exposure during typical application is expected to be insignificant. Exposure to formaldehyde vapor is a potential concern if product is applied under confined space conditions. Consult appropriate exposure guidelines for formaldehyde. (OSHA: 0.75 ppm-TWA, 2.0 ppm - STEL, ACGIH 0.3 ppm Ceiling)

EXPOSURE GUIDELINES (CANADA)

Employers should consult provincial regulatory limits for exposure guidelines which may vary locally.

Engineering Controls: Not generally required.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection is not generally required. However, if exposure limits (Section 8) are exceeded or respiratory irritation develops due to inhalation, a NIOSH approved respirator is recommended.
A NIOSH approved respirator for Formaldehyde vapor is required whenever exposures exceed regulatory limits. For additional information, refer to US OSHA Regulations 29 CFR 1910.§ 134.
Skin Protection: Impervious (PVC, latex or nitrile) gloves should be worn anytime direct contact is possible.
Eye Protection: Safety glasses or goggles should be worn.
Work/Hygienic Practices: Use good personal hygiene practices.
None beyond those noted above.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance/Odor:	Red Mastic. Mild latex odor.
Odor Threshold: (ppm)	Not Determined
pH:	Not Available
Vapor Pressure: (Mm Hg)	Not Applicable
Vapor Density: (Air = 1)	>1
Solubility In Water:	Appreciable
Specific Gravity: (Water = 1)	Not Available
Evaporation Rate: (Butyl Acetate = 1)	1
Boiling Point:	>212°F/100°C
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	Not Applicable
% Volatiles (gr/L): (70°F)(21°C)	10.86 g/l

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	Oxidizing materials and Strong acids.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide, Low molecular weight hydrocarbons and Aldehydes.

SECTION 11 - TOXICOLOGICAL INFORMATION

Ingredient(No data unless listed.)	CAS Number	LD50 and LC50
Melamine	000108-78-1	Inhalation LC50 Rat : 3248 mg/m3; Oral LD50 Rat : 3161 mg/kg;
Triphenyl phosphate	000115-86-6	Oral LD50 Rat : 3500 mg/kg; Oral LD50 Mouse : 1320 mg/kg;

Carcinogenicity:

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
2-Propenoic acid, polymer..	No	No	No	No	No	No
Dipentaerythritol	No	No	No	No	No	No
Graphite	No	No	No	No	No	No
Melamine	No	No	No	No	No	No
Phenol, isopropylated, phosphate (3:1)	No	No	No	No	No	No
Phenol-formaldehyde polymer	No	No	No	No	No	No
Polyvinyl Acetate Emulsion	No	No	No	No	No	No
Silicic acid, sodium salt	No	No	No	No	No	No
Sulfuric acid	Yes	No	No	No	No	Yes
Talc	No	No	No	No	No	No
Triphenyl phosphate	No	No	No	No	No	No
Zinc borate	No	No	No	No	No	No

*Contains formaldehyde below 0.1% threshold. Product is capable of releasing formaldehyde under certain conditions. Exposures during typical applications are expected to be insignificant. Exposure to formaldehyde vapor is a potential concern if product is applied under confined space conditions. NTP: Suspect Carcinogen. IARC: Group 2A. OSHA: Potential.

Mutagenicity:	Phenol-formaldehyde polymer in this product has tested positive as a mutagen.
Teratogenicity:	No information available.
Reproductive Toxicity:	No information available.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: No data available for product.

Ecotoxicity: No data available for product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Procedures: Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. According to EPA (40 CFR § 261), waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Not Applicable
UN/NA Number:	Not Applicable
Domestic Hazard Class:	Nonhazardous
Surface Freight Classification:	Not Applicable
Label/Placard Required:	Not Applicable

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

CERCLA (Comprehensive Response Compensation and Liability Act): (None present unless listed below)

Chemical Name	CAS #	Wt %	CERCLA RQ
Zinc borate	001332-07-6	3.9	1,000

SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Section 312/Tier I & II Hazard Categories:

Health Immediate (acute)	Yes
Health Delayed (chronic)	Yes
Flammable	No
Reactive	No
Pressure	No

302 Reportable Ingredients (Identification Threshold 1%.):

Chemical Name	CAS #	Wt %	SARA 302 TPQ

313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

Chemical Name	CAS #	Wt %
Acetaldehyde	000075-07-0	.0015
Acrylamide	000079-06-1	.0009
Acrylonitrile	000107-13-1	.0003
Cumene	000098-82-8	.0201
Ethyl acrylate	000140-88-5	.0024
Ethylene Glycol	000107-21-1	.081
Formaldehyde	000050-00-0	.0363
Nitric acid	007697-37-2	.45
Pseudocumene	000095-63-6	.4288
Sulfuric acid	007664-93-9	.45
Vinyl acetate	000108-05-4	.0907
Xylenes (o-, m-, p- isomers)	001330-20-7	.0402
Zinc Compounds	RR-00578-7	3.9

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) 10.86 g/l

WHMIS Classification(s): D2 B

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

State Regulatory Information:

California Proposition 65: WARNING! This product contains substances known to the state of California to cause cancer, birth defects or other reproductive harm.

Massachusetts Hazardous Substance List(Identification threshold 0.001%(1ppm)):

Chemical Name	CAS #	Wt %
Acetaldehyde	000075-07-0	.0015
Acrylamide	000079-06-1	.0009
Acrylonitrile	000107-13-1	.0003
Ethyl acrylate	000140-88-5	.0024
Formaldehyde	000050-00-0	.0363
Nitric acid	007697-37-2	.45
Sulfuric acid	007664-93-9	.45
Vinyl acetate	000108-05-4	.0907

New Jersey Hazardous Substance List(Identification threshold (0.1%)):

Chemical Name	CAS #	Wt %
Nitric acid	007697-37-2	.45
Pseudocumene	000095-63-6	.42
Sulfuric acid	007664-93-9	.45

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

Chemical Name	CAS #	Wt %
Formaldehyde	000050-00-0	.036

CHEMICAL INVENTORY STATUS:

All chemicals in this product are listed or exempt from listing in the following countries:

US	CANADA		EUROPE	AUSTRALIA	JAPAN	KOREA	PHILIPPINES
TSCA	DSL	NDSL	EINECS/ELINCS	AICS	ENCS	ECL	PICCS
Yes	Yes	No	Not Determined	Not Determined	Not Determined	Not Determined	Not Determined

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

Chemical Name	CAS Number
Water	007732-18-5

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 12/08/2005

Disclaimer:

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."

SAFETY DATA SHEET

Issuing Date No data available **Revision Date** 23-Mar-2015 **Revision Number** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Mean Green Industrial Strength Cleaner & Degreaser**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use General Purpose Cleaner - Non-aerosol

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name CR Brands
Supplier Address 8790 Beckett Rd.
West Chester
Ohio
45069
US
Supplier Phone Number Phone:(513) 860-5039
Fax:(513) 682-5420
Contact Phone:(513) 860-5039
Supplier Email efrasier@crbrandsinc.com
Emergency telephone number 1-800-222-1222

2. HAZARDS IDENTIFICATION

Classification

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

Serious eye damage/eye irritation	Category 2A

GHS Label elements, including precautionary statements

Emergency Overview

Signal word	**Warning**

Hazard Statements
Causes serious eye irritation

Appearance Emerald green **Physical State** Liquid **Odor** Slight glycol ether

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

Precautionary Statements - Response

Eyes
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 Statements - Storage
None

Precautionary Statements - Disposal
None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity
0.0002% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Causes mild skin irritation
Harmful to aquatic life with long lasting effects

Interactions with Other Chemicals
No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-,branched	127087-87-0	1 - 5	*

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

4. FIRST AID MEASURES

First aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin Contact Wash with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning sensation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

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

Specific Hazards Arising from the Chemical
No information available.

Uniform Fire Code Irritant: Liquid

Hazardous Combustion Products
Carbon oxides.

Explosion Data
Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Other Information	Refer to protective measures listed in Sections 7 and 8.

Environmental Precautions

Environmental Precautions	Refer to protective measures listed in Sections 7 and 8.

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	Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible Products	None known based on information supplied.

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

Appropriate engineering controls

Engineering Measures	Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection	None required for consumer use. If splashes are likely to occur:. Wear safety glasses with side shields (or goggles).

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Liquid		
Appearance	Emerald green	**Odor**	Slight glycol ether
Color	No information available	**Odor Threshold**	No information available

Property	Values	Remarks Method
pH	11	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	100 °C / 212 °F	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	20	None known
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to avoid
None known based on information supplied.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye Contact	Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. May cause redness, itching, and pain.
Skin Contact	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-,branched 127087-87-0	-	= 1780 µL/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes.

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

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No known effect based on information supplied.
Target Organ Effects	Eyes.
Aspiration Hazard	No information available.

Numerical measures of toxicity Product Information

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

ATEmix (oral)
18,182.00 mg/kg
ATEmix (dermal)
64,533,091.00

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Persistence and Degradability
No information available.

Bioaccumulation
No information available

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods

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

Contaminated Packaging

Dispose of contents/containers in accordance with local regulations.

California Hazardous Waste Codes 331

14. TRANSPORT INFORMATION

DOT	NOT REGULATED
Proper Shipping Name	NON REGULATED
Hazard Class	N/A
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
Proper Shipping Name	NON REGULATED
Hazard Class	N/A
IMDG/IMO	Not regulated
Hazard Class	N/A
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

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

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 the following Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethylene glycol dibutyl ether 112-48-1			X	X	X
Sodium hydroxide 1310-73-2	X	X	X	X	

International Regulations

Canada
WHMIS Hazard Class
D2B - Toxic materials

16. OTHER INFORMATION

NFPA	**Health Hazards** 2	**Flammability** 0	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazards** 2	**Flammability** 0	**Physical Hazard** 0	**Personal Protection** X

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date	23-Mar-2015
Revision Note	No information available

Disclaimer

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

End of Safety Data Sheet

SAFETY DATA SHEET

1. Identification

Product identifier	**Oatey Silicone Sealant – White or Clear**
Other means of identification	
Product code	
Synonyms	Part Numbers: Clear – 30236, White - 30237
Recommended use	Sealant for use around tubs, sinks and other plumbing applications.
Recommended restrictions	Do not use on applications where product will be submerged under water.
Manufacturer/Importer/Supplier/Distributor information	
Company Name	Oatey Inc.
Address	4700 West 160th Street Cleveland, OH 44135
Telephone	216-267-7100
E-mail	info@oatey.com
Transport Emergency	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
Emergency First Aid	1-877-740-5015
Contact person	MSDS Coordinator

2. Hazard(s) identification

Physical hazards	Not Classified.
Health hazards	Not Classified.
OSHA defined hazards	Not Classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	This product was determined to be non-hazardous.
Precautionary statement	
Prevention	Use outdoors or in a well ventilated area.
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Silicon Dioxide	7631-86-9	5 - 10
Distillates (petroleum), hydrotreated middle	64742-46-7	5 - 10
Titanium Dioxide (White Sealant Only)	13463-67-7	0 – 5
Dimethyl siloxane, hydroxyl terminated	70131-67-8	70 - 90

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Skin or eye irritation.
Indication of immediate medical attention and special treatment needed.	Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
General information	Note to physician, treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Use dry chemical, CO2, alcohol-resistant foam or water spray (fog).
Unsuitable extinguishing media	water jet
Specific hazards arising from the chemical	No specific fire or explosion hazard.
Special protective equipment and precautions for firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Fire fighting equipment/instructions	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Specific methods	None
General fire hazards	None

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Methods and materials for containment and cleaning up	Large Spills: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal. Small Spills: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

7. Handling and storage

Precautions for safe handling	Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid

environmental contamination.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Petroleum Distillate	TWA	5 mg/m3
Titanium Dioxide	TWA	10 mg/m3

US OSHA Permissible Exposure Limits

Components	Type	Value
Petroleum Distillate	TWA	5 mg/m3
Titanium Dioxide	TWA	15 mg/m3
Silicone Dioxide	TWA	80 mg/m3

Biological limit values No Biological limits.

Appropriate engineering controls No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Thermal hazards None.

General hygiene considerations Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Paste

Color White or translucent.

Odor Acetic acid/vinegar smell

Odor threshold Not available.

pH Not applicable.

Melting point/freezing point Not applicable.

Initial boiling point and boiling range Not determined

Flash point > 199 °F (> 93.3 °C)

Upper/lower flammability or explosive limits

Flammability limit – lower (%) Not available

Flammability limit – upper (%) Not available

Explosive limit - lower (%) Not available

Explosive limit - upper (%) Not available

Vapor pressure Not applicable

Vapor density	Not applicable
Relative density	1.04 – 1.09
Solubility(ies)	
Solubility (water)	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity	Not available
Other information	
VOC (Weight %)	28 g/L (< 3.0% by weight)

10. Stability and reactivity

Reactivity	Stable under normal conditions.
Chemical stability	The product is stable.
Possibility of hazardous reaction	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No specific data.
Incompatible materials	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Acute Toxicity estimates: > 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation.
Skin contact	No known significant effects or critical hazards.
Eye contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Symptoms related to the physical, chemical and toxicological characteristics	No specific data.

Information on likely routes of exposure
Acute Toxicity

Components	Species	Results
Silicone Dioxide		
Acute Oral Toxicity	Rat LD(50)	3,300 mg/kg
Acute Inhalation Toxicity	Rat LD(50)	2.08 mg/l
Distillates (petroleum		

Skin corrosion/irritation	Not determined.
Serious eye damage/eye irritation	Not determined.
Respiratory or skin sensitization	
Respiratory sensitization	Not considered a respiratory irritant
Skin sensitization	This product is not expected to cause skin irritation.
Germ cell mutagenicity	No specific data
Carcinogenicity	Sufficient evidence of carcinogenicity in inhalation studies with animals for titanium dioxide exist. However, due to the titanium dioxide being inextricably bound in the silicone matrix, the likelihood of exposure is minimal.
IARC	Titanium Dioxide – 13463-67-7 Group 2B: Possibly carcinogenic to humans.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcino- gen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcino- gen by OSHA.

Reproductive toxicity	No known significant effects or critical hazards.
Specific target organ toxicity	
Single exposure	Not Classified.
Repeated exposure	Not Classified.
Aspiration Hazard	Contains Distillates (petroleum), hydrotreated – Which is a category 1 Aspiration Hazard. The likely hood of aspirating the product in this form is very low due to the high viscosity.
Chronic effects	Not Classified.
Further information	

12. Ecological information

Ecotoxicity

Product/ingredient name	Results	Species	Exposure
Petroleum Distillates			
	Acute LC50 2,900 µg/l Fresh water	Fish - Rainbow trout,Donaldson trout	96 h
	Acute LC50 2,200 µg/l Fresh water	Fish - Bluegill	96 h

Persistence and degradability	Not Available.
Bio accumulative potential	Not Available.
Mobility in soil	Not available.
Other adverse effects	No known significant effects of critical hazards.

13. Disposal considerations

Disposal instructions	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Local disposal regulations	Not Applicable
Hazardous waste code	Not Applicable

14. Transportation information

DOT	Not Regulated
UN number	
UN Proper Shipping Name	
Transportation Hazard classes	
Packing group	
IATA	Not Regulated
UN number	
UN Proper Shipping Name	
Transportation Hazard classes	
Packing group	
IMDG	Not Regulated
UN number	
UN Proper Shipping Name	
Transportation Hazard classes	
Packing group	
Environmental hazards	

Marine polluntant

15. Regulatory information

U.S. Federal regulations

TSCA 12(b) - Chemical export notification: None required.
TSCA 5(a)2 - Final significant new use rules: Not listed
TSCA 5(a)2 - Proposed significant new use rules: Not listed
TSCA 5(e) - Substances consent order: Not listed

SARA 311/312

Classification Not applicable

US state regulations

California Prop 65 This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Canada

WHMIS (Canada) Not classified.

International regulations

Country(s) or region	Inventory Name	On inventory list (yes/no)*
Canada	DSL/NDSL	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA 8b)	Yes

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

Issue Date 12-May-2015

Revision Date -

Version # 01

HMIS Rating Health: 1
Flammability: 1
Physical Hazards: 0

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

PB Penetrating Catalyst

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.
Issue date: 9/11/2016 Revision date: 6/9/2022 Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : PB Penetrating Catalyst
Product code : 16-PB, 8-PB, PB-TS, 20-PB, 26-PB, 16-PB-DS

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Penetrant

1.3. Supplier

Manufacturer
Blaster LLC
8500 Sweet Valley Drive
44125 Valley View, Ohio - USA
T (216) 901-5800 - F (216) 901-5801
www.blasterproducts.com

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flam. Aerosol 2	Flammable aerosol
Press. Gas (Diss.)	Contains gas under pressure; may explode if heated
Eye Irrit. 2	Causes serious eye irritation
Repr. 1B	May damage fertility or the unborn child
Asp. Tox. 1	May be fatal if swallowed and enters airways

2.2. GHS Label elements, including precautionary statements

This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : Flammable aerosol
Contains gas under pressure; may explode if heated
May be fatal if swallowed and enters airways
Causes serious eye irritation
May damage fertility or the unborn child
Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Wash hands, forearms and face thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Immediately call a poison center or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
Do NOT induce vomiting.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Store in a well-ventilated place.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.
Petroleum distillates, hydrotreated light	CAS-No.: 64742-47-8	30 – 60	Flam. Liq. 3;H226 Asp. Tox. 1;H304
Solvent naphtha, petroleum, heavy aromatic	CAS-No.: 64742-94-5	10 – 30	Flam. Liq. 3;H226 Asp. Tox. 1;H304
Distillates, petroleum, hydrotreated heavy naphthenic	CAS-No.: 64742-52-5	10 – 30	Asp. Tox. 1;H304
Carbon dioxide	CAS-No.: 124-38-9	0.5 - 1.5	Press. Gas (Comp.);H280
Poly(oxy-1,2-ethanediyl), .alpha.-(dinonylphenyl)-.omega.-hydroxy-, phosphate	CAS-No.: 39464-64-7	0.1 - 1	Skin Corr. 1A;H314 Eye Dam. 1;H318
Methyl salicylate	CAS-No.: 119-36-8	0.1 - 1	Acute Tox. 4 (Oral);H302 Eye Dam. 1;H318 Repr. 1B;H360

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret
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 after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

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

Symptoms/effects after inhalation : May cause respiratory tract irritation.

Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye irritation.Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide, dry chemical, halons. Foam.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable aerosol. Products of combustion may include, and are not limited to: oxides of carbon.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : DO NOT fight fire when fire reaches explosives. Evacuate area. Exercise caution when fighting any chemical fire.

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Use water spray to keep fire-exposed containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment	:	Eliminate sources of ignition. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up	:	Scoop up material and place in a disposal container. Provide ventilation.

6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Do not spray on an open flame or other ignition source. Keep away from sources of ignition - No smoking. Use non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas, fumes, vapour or spray. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Do not pierce or burn, even after use.
Hygiene measures	:	Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	:	Keep locked up and out of reach of children. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store away from direct sunlight or other heat sources. Keep in fireproof place.
Storage area	:	Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PB Penetrating Catalyst

No additional information available

Petroleum distillates, hydrotreated light (64742-47-8)

No additional information available

Carbon dioxide (124-38-9)

USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	5000 ppm
ACGIH OEL STEL [ppm]	30000 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	9000 mg/m³
OSHA PEL (TWA) [2]	5000 ppm

Carbon dioxide (124-38-9)	
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	40000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	9000 mg/m³
NIOSH REL TWA [ppm]	5000 ppm
NIOSH REL (STEL)	54000 mg/m³
NIOSH REL STEL [ppm]	30000 ppm

Poly(oxy-1,2-ethanediyl), .alpha.-(dinonylphenyl)-.omega.-hydroxy-, phosphate (39464-64-7)
No additional information available

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)
No additional information available

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)
No additional information available

Methyl salicylate (119-36-8)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear chemically resistant protective gloves.

Eye protection:

Safety glasses or goggles are recommended when using product.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear. Aerosol.

Color	:	orange
Odor	:	Characteristic
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	180 °C (356 °F)
Flash point	:	> 141 ºF (> 61 °C)
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Flammable aerosol.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	0.9
Solubility	:	No data available
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

Heat of Combustion	:	45.8 kJ/g
Flashback	:	None
Flame Projection	:	0 inches

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. Flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Sources of ignition. Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Petroleum distillates, hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5.2 mg/l/4h

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:EPA Fed Reg Vol 50, No. 188 1985 and as amended in Fed Reg Vol 52, No. 97, 1987
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 590 mg/m³ (Exposure time: 4 h)

Methyl salicylate (119-36-8)	
LD50 oral rat	887 mg/kg
LD50 oral	1060 mg/kg body weight Animal: guinea pig, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 873 - 1300
LD50 dermal rabbit	> 5000 mg/kg
ATE US (oral)	887 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity : May damage fertility or the unborn child.

Petroleum distillates, hydrotreated light (64742-47-8)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg body weight Animal: rat, Animal sex: male

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
NOAEL (animal/male, F0/P)	35 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:OPPTS 870.3650 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
NOAEL (animal/female, F0/P)	125 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:OPPTS 870.3650 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Petroleum distillates, hydrotreated light (64742-47-8)	
NOAEL (oral,rat,90 days)	750 mg/kg body weight Animal: rat, Animal sex: female
NOAEC (inhalation,rat,vapor,90 days)	≥ 0.024 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)	
LOAEL (oral,rat,90 days)	125 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (dermal,rat/rabbit,90 days)	≈ 1000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
LOAEL (oral,rat,90 days)	1250 mg/kg body weight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
LOAEC (inhalation,rat,vapor,90 days)	4.71 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
NOAEL (oral,rat,90 days)	625 mg/kg body weight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal,rat/rabbit,90 days)	2000 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEC (inhalation,rat,vapor,90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity, kinematic : No data available

Carbon dioxide (124-38-9)	
Vaporizer	Aerosol

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)	
Viscosity, kinematic	1.99 – 847 mm²/s Temp.: '40°C' Parameter: 'mm²/smm2/s '

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
Viscosity, kinematic	2.66 mm²/s

Methyl salicylate (119-36-8)	
Viscosity, kinematic	1.308 mm²/s

Symptoms/effects after inhalation : May cause respiratory tract irritation.

Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Petroleum distillates, hydrotreated light (64742-47-8)	
LC50 - Fish [1]	45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)	
LC50 - Fish [1]	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [1]	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
LC50 - Fish [1]	19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	0.95 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	2.34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [2]	0.76 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	12.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	18.9 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	11.7 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	18.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Methyl salicylate (119-36-8)	
LC50 - Fish [1]	19.8 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	28 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	1370 mg/l Test organisms (species): Pimephales promelas
EC50 72h - Algae [1]	1.6 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	1.1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

PB Penetrating Catalyst	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

PB Penetrating Catalyst	
Bioaccumulative potential	Not established.

Petroleum distillates, hydrotreated light (64742-47-8)	
BCF - Fish [1]	61 – 159

Carbon dioxide (124-38-9)	
BCF - Fish [1]	(no bioaccumulation)

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
BCF - Fish [1]	61 – 159
Partition coefficient n-octanol/water	2.9 – 6.1

Methyl salicylate (119-36-8)	
Partition coefficient n-octanol/water	2.55

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Flammable vapors may accumulate in the container.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

DOT NA No : UN1950

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Aerosols (flammable, (each not exceeding 1 L capacity))

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 2.1

Hazard labels (DOT) : 2.1

14.4. Packing group

Packing group (DOT) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

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

DOT

UN-No.(DOT)	:	UN1950
DOT Special Provisions (49 CFR 172.102)	:	N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	306
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	None
DOT Packaging Bulk (49 CFR 173.xxx)	:	None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	150 kg
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	:	25 - Protected from sources of heat,87 - Stow ‘‘separated from’’ Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to Naphthalene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Issue date	:	09/11/2016
Revision date	:	06/09/2022
Other information	:	None.

Full text of H-phrases	
Asp. Tox. 1	Aspiration hazard Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Aerosol 2	Flammable aerosol Category 2
Press. Gas (Diss.)	Gases under pressure Dissolved gas

Full text of H-phrases	
Repr. 1B	Reproductive toxicity Category 1B

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SAFETY DATA SHEET

Last Updated: 04/17/2018

Section 1	IDENTIFICATION
PipeFit®	
PipeFit Pint BIC PipeFit Qt. Flat top PipeFit Qt. BIC	PipeFit 5 gal PipeFit 55 gal
Manufacturer Information Smith-Cooper International 2867 Vail Avenue Commerce, CA 90040 Phone: +1 (800) 766-0076 Fax: +1 (323) 890-4456	Emergency Contact CHEMTREC 1300 Wilson Boulevard Arlington, VA 22209-2380 Phone: (800)424-9300 International: +1 (703) 527-3887
Product Use	Pipe thread sealant
Section 2	**HAZARDS IDENTIFICATION**
Hazard Classification	Non-hazardous
Eye Irrit. 2A, H319 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	Warning
Hazard Statements	Causes eye irritation May cause skin irritation May cause respiratory irritation
Precautionary Statements	Avoid contact with skin and eyes. Do not breathe fumes. Always wash hands immediately after handling this product, and once again before leaving the workplace.
Prevention	Avoid contact with skin and eyes. Wear suitable gloves. Do not eat, drink, or smoke when using this product.

Response	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs; get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable during breathing. IF IN EYES: Immediately flush eyes with plenty of water. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Obtain medical attention if pain, blinking or redness persists. Never give anything by mouth to an unconscious person. Get medical attention/advice if you feel unwell.
Storage	Storage conditions: Keep container closed when not in use. Incompatible products: Strong acids. Strong bases. Strong oxidizers. Solvents. Heat and ignition sources: Keep away from heat, sparks and flame. Prohibitions on mixed storage: Incompatible materials. Storage area: Store in dry, cool, well-ventilated area.
Disposal	Sewage disposal recommendations: Do not dispose of waste into sewer. Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Ecology - waste materials: Avoid release to the environment.

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS Number	0 - 0.22
Phosphorodithioic acid, O,O-di-C1-14- alkyl esters, zinc salts	68649-42-3	0 - 0.22

Section 4 FIRST AID MEASURES

Inhalation	May cause irritation, coughing, shortness of breath.
Skin	Wash with plenty of soap and water. If skin irritation occurs; get medical advice/attention.
Eye	Immediately flush eyes with plenty of water. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Get medical advice/attention if you feel unwell.
Symptoms	Inhalation may cause: irritation, coughing, shortness of breath.
Medical Care	Treat symptomatically. Never give anything by mouth to an unconscious person. Get medical attention/advice if you feel unwell.

Section 5 FIRE FIGHTING MEASURES

Flash Point	150 °C
Extinguishing Media	Carbon dioxide. Dry chemical. Foam. Water Spray.
Special Firefighting Procedures/Equipment	Firefighting instructions: Cool adjacent structures and containers with water spray to protect and prevent ignition. Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. Remove all unprotected personnel.
Unusual Fire and Explosion Hazards	Fire hazard: Burning produces irritating, toxic and noxious fumes. Explosion hazard: Product is not explosive. Reactivity: No dangerous reactions known.

Additional Information	No known unsuitable extinguishing media.

Section 6 — **ACCIDENTAL RELEASE MEASURES**

Personal Precautions	General Measures: Avoid contact with skin and eyes. Wear suitable gloves. Emergency Responders: Wear suitable gloves. Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area.
Environmental Precautions	Prevent entry to sewers and public waters.
Methods and Materials Use for Containment	Do not allow minor leaks or spills to accumulate on walking surfaces. Contain and collect as any solid.
Methods for Clean Up	Section 13: disposal information. Section 7: safe handling.

Section 7 — **HANDLING AND STORAGE**

Handling	Avoid contact with skin and eyes. Do not breathe fume. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Do not eat, drink or smoke when using this product.
Storage	Storage conditions: Keep container closed when not in use. Incompatible products: Strong acids. Strong bases. Strong oxidizers. Solvents. Heat and ignition sources: Keep away from heat, sparks and flame. Prohibitions on mixed storage: Incompatible materials. Storage area: Store in dry, cool, well-ventilated area.

Section 8 — **EXPOSURE CONTROLS/ PERSONAL PROTECTION**

Exposure Guidelines

Components	CAS-No.	Type	Value
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	ACGIH: not applicable OSHA: not applicable	No established limit.

Engineering Controls	Avoid creating mist or spray. Ensure good ventilation of the work station.
Personal Protection	Eye protection: None under normal use. Hand protection: In case of repeated or prolonged contact wear gloves. Respiratory Protection: None under normal use.
General Measures	Keep out of reach of children. Do not eat, drink or smoke when using this product.

Section 9 — **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: White paste	**Evaporation Rate:** No data available
Odor: Mild	**Flammability:** No data available
Odor Threshold: No data available	**Upper/lower Flammability and/or Explosive Limits:** No data available
pH: No data available	**Vapor Pressure:** No data available
Melting Point/Freezing Point: No data available	**Vapor Density:** No data available
Boiling Point and Boiling Range: 177 °C	**Relative Density:** 1.48

Flash Point: 150 °C	**Solubility:** Insoluble in water
Partition Coefficient: No data available	**Auto-Ignition Temperature:** No data available
Decomposition Temperature: No data available	**Viscosity:** No data available
VOC content: 0 g/L	

Section 10	STABILITY AND REACTIVITY
Reactivity	No dangerous reactions known.
Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Heat and open flame.
Incompatible Materials	Strong acids. Strong bases. Strong oxidizers. Solvents.
Hazardous Decomposition	Carbon oxides (CO, CO2). Hydrogen fluoride. Perfluoro- carbon olefins.

Section 11	TOXICOLOGICAL INFORMATION
Ingestion Toxicity	0.22 percent of the mixture consists of ingredient(s) of unknown acute toxicity. LD50 oral rat: 26100 mg/kg ATE CLP (oral) 26100.000 mg/kg bodyweight
Skin Toxicity	Not Classified.
Eye Irritation	Not Classified.
Respiratory Irritation	Not Classified.
Chronic Toxicity	Not Classified.
Carcinogenicity	Not Classified.
Other	Potential adverse human health effects and symptoms: AFTER INHALATION: may cause irritation, coughing, shortness of breath. LIKELY ROUTES OF EXPOSURE: ingestion, skin and eye contact.

Section 12	ECOLOGICAL INFORMATION
Ecotoxicity	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3) LC50 fish 1 10 (10 - 35) mg/l Pimephales promelas OECD GDL 203 (water accomodated fraction) EC50 Daphnia 1 1 (1 - 1.5) mg/l OECD GDL 202 (water accomodated fraction) NOEC (acute) 10 mg/l Pimephales promelas OECD GDL 203 (water accomodated fraction) NOEC chronic crustacea < 1 mg/l
Degradability	Not readily biodegradable.

Other	N/A
Section 13	**DISPOSAL CONSIDERATIONS**
Waste Disposal Method	Sewage disposal recommendations: Do not dispose of waste into sewer. Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Ecology - waste materials: Avoid release to the environment.
Section 14	**TRANSPORT INFORMATION**
UN Number	Not applicable
UN Proper Shipping Name	Not applicable
Transport Hazard Class	In accordance with DOT and TDG. Not considered a dangerous good for transport regulations.
Canadian Transportation of Dangerous Goods	Listed on the Canadian DSL (Domestic Substances List) inventory.
Marine Pollutants	Do not dispose of waste into sewer.
Special Precautions	No additional information available.
Section 15	**REGULATORY INFORMATION**
TSCA Status	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3) Listed on the United States TSCA (Toxic Substances Control Act) inventory
SARA 311/312 Hazards	Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
	Must be preheated before ignition can occur.
	Normally stable, even under fire exposure conditions, and not reactive with water.
California Prop 65	Not applicable.
DSL Status (Canada)	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3) Listed on the Canadian DSL (Domestic Substances List) inventory.
Section 16	**OTHER INFORMATION**
Additional Information	There are no Red List materials included in this product.
Prepared By	Human Resource Department
Revised Date	7/20/15
Disclaimer	Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, **Smith-Cooper International** makes no representations as to the completeness or accuracy thereof. **Smith-Cooper International** makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose since the conditions of use are beyond our control. **Smith-Cooper International** no responsibility for injury to recipient or to third persons for any damage to any property and recipient.

Safety Data Sheet: PIPE SEALANT WITH PTFE

Supercedes Date 10/05/2011 **Issuing Date** 10/30/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name PIPE SEALANT WITH PTFE
Recommended use Sealant
Information on Manufacturer
Partsmaster, Div of NCH Corp.

P.O. Box 655326
Dallas, TX 75265-5326

Product Code 4825
Chemical nature mixture
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARD IDENTIFICATION

Color Off-white **Physical State** Paste **Odor** Mild

GHS Classification

Physical Hazards
None

Health Hazard

Acute Inhalation Toxicity - Vapors	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Skin Sensitization	Category 1
Specific target organ systemic toxicity (single exposure)	Category 3

Other hazards
None

Labeling
Signal Word
WARNING

Hazard Statements
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness

Precautionary Statements
P280 - Wear protective gloves, protective clothing and eye protection.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace
P261 - Avoid breathing vapor
P271 - Use in a well-ventilated area.
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs, get medical attention
P362 - Take off contaminated clothing and wash before reuse
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 attention.
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a physician if unwell.
P403 - Store in a well-ventilated place
P233 - Keep container tightly closed
P501 - Dispose of contents and container in accordance with applicable regulations.

60 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Polyglycol dimethacrylate	25852-47-5	30-60
Phthalic acid, benzyl alkyl(C7-C8) ester	68515-40-2	15-40
Treated fumed silica	67762-90-7	5-10
Polytetrafluoroethylene	9002-84-0	5-10
Cellulose acetate butyrate	9004-36-8	5-10

Cumene hydroperoxide	80-15-9	1-5
Saccharin	81-07-2	1-5

4. FIRST AID MEASURES

General advice Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.
Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
Skin Contact Wipe up with absorbent material (e.g. cloth, fleece). Wash off with soap and plenty of water. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.
Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth.
Notes to physician May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Flash Point > 201 °F / > 94 °C **Method** Pensky Marten Closed Tester
Flammability Limits in Air % Not applicable. **Upper** No data available **Lower** No data available
Suitable Extinguishing Media
Water spray. Carbon dioxide (CO2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical
Material can create slippery conditions.
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.

NFPA	**Health** 2	**Flammability** 1	**Instability** 1
HMIS	**Health** 2	**Flammability** 1	**Instability** 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so.
Environmental Precautions Do not flush into surface water or sanitary sewer system.
Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up Pick up and transfer to properly labeled containers.
Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.
Storage Store in original container. Keep container tightly closed in a dry and well-ventilated place.
Storage Temperature **Minimum** 35 °F / 2 °C **Maximum** 100 °F / 38 °C
Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Polyglycol dimethacrylate	No data available	No data available	No data available
Phthalic acid, benzyl alkyl(C7-C8) ester	No data available	No data available	No data available
Treated fumed silica	No data available	No data available	No data available
Polytetrafluoroethylene	No data available	No data available	No data available
Cellulose acetate butyrate	No data available	No data available	No data available
Cumene hydroperoxide	No data available	No data available	No data available
Saccharin	No data available	No data available	No data available

Engineering Measures Ensure adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Personal Protective Equipment
Eye/Face Protection Safety glasses with side-shields.
Skin Protection Wear suitable protective clothing, Impervious gloves.
Respiratory Protection In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Paste	**Viscosity**	Viscous
Color	Off-white	**Odor**	Mild
Odor Threshold	Not applicable	**Appearance**	Opaque
pH	Not applicable	**Specific Gravity**	1.15
Evaporation Rate	No data available	**Percent Volatile (Volume)**	No data available
VOC Content (%)	0.02	**VOC Content (g/L)**	0.24
Vapor Pressure	<5 mmHg @ 80°F	**Vapor Density**	No information available
Solubility	Slight	**n-Octanol/Water Partition**	No data available
Melting Point/Range	No data available	**Decomposition Temperature**	No data available
Boiling Point/Range	> 300 °F / 149 °C	**Flammability (solid, gas)**	No data available
Flash Point	> 201 °F / > 94 °C	**Method**	Pensky Marten Closed Tester
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Not applicable.	**Upper** No data available **Lower** No data available	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Extremes of temperature and direct sunlight
Incompatible Products	Strong oxidizing agents, Heavy metal salts, Amines, Strong acids, Strong bases.
Hazardous Decomposition Products	Carbon oxides
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50	3,834.69
Dermal LD50	5,019.23
Inhalation LC50	
Gas	220.00
Mist	0.06
Vapor	0.06

Principle Route of Exposure	Skin contact, Eye contact.
Primary Routes of Entry	Skin Absorption, Inhalation.
Acute Effects	
Eyes	Causes eye irritation.
Skin	May cause skin irritation. May cause allergic skin reaction.
Inhalation	May cause irritation of respiratory tract. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic Toxicity	May cause sensitization by skin contact.
Target Organ Effects	Respiratory system, Central nervous system, Immune system, Skin, Eyes.
Aggravated Medical Conditions	Respiratory disorders, Skin disorders, Neurological disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Polyglycol dimethacrylate	no data available	no data available	no data available	no data available	no data available
Phthalic acid, benzyl alkyl(C7-C8) ester	> 15800 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	no data available	no data available	no data available
Treated fumed silica	= > 5000 mg/kg (Rat)	no data available	no data available	no data available	no data available
Polytetrafluoroethylene	no data available	no data available	no data available	no data available	no data available
Cellulose acetate butyrate	no data available	no data available	no data available	no data available	no data available
Cumene hydroperoxide	= 382 mg/kg (Rat)	= 500 mg/kg (Rat)	= 220 ppm (Rat) 4 h	no data available	no data available
Saccharin	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Polyglycol dimethacrylate	no data available	no data available	no data available	no data available	no data available
Phthalic acid, benzyl alkyl(C7-C8) ester	no data available	no data available	no data available	no data available	no data available
Treated fumed silica	no data available	no data available	no data available	no data available	no data available

Polytetrafluoroethylene	no data available	no data available	no data available	no data available	no data available
Cellulose acetate butyrate	no data available	no data available	no data available	no data available	no data available
Cumene hydroperoxide	no data available	skin sensitization	no data available	no data available	immune system, lungs, CNS
Saccharin	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Polyglycol dimethacrylate	not applicable	not applicable	not applicable	not applicable	not applicable
Phthalic acid, benzyl alkyl(C7-C8) ester	not applicable	not applicable	not applicable	not applicable	not applicable
Treated fumed silica	not applicable	not applicable	not applicable	not applicable	not applicable
Polytetrafluoroethylene	not applicable	not applicable	not applicable	not applicable	not applicable
Cellulose acetate butyrate	not applicable	not applicable	not applicable	not applicable	not applicable
Cumene hydroperoxide	not applicable	not applicable	not applicable	not applicable	not applicable
Saccharin	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information — No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Polyglycol dimethacrylate	no data available	no data available	no data available	no data available	N/A
Phthalic acid, benzyl alkyl(C7-C8) ester	no data available	LC50 > 0.3 mg/L Oncorhynchus mykiss 96 h LC50 > 0.3 mg/L Lepomis macrochirus 96 h LC50 > 0.3 mg/L Pimephales promelas 96 h	no data available	EC50= 0.3 mg/L 48 h	N/A
Treated fumed silica	no data available	no data available	no data available	no data available	N/A
Polytetrafluoroethylene	no data available	no data available	no data available	no data available	N/A
Cellulose acetate butyrate	no data available	no data available	no data available	no data available	N/A
Cumene hydroperoxide	no data available	LC50 = 3.9 mg/L Oncorhynchus mykiss 96 h	no data available	EC50= 7 mg/L 24 h	N/A
Saccharin	no data available	LC50 = 18300 mg/L Pimephales promelas 96 h	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

Inventories
TSCA Complies
DSL Complies
U.S. Federal Regulations

SARA 313

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

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Cumene hydroperoxide	80-15-9	1-5	1.0
Saccharin	81-07-2	1-5	1.0

SARA 311/312 Hazardous Categorization

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

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Polyglycol dimethacrylate	Not applicable	Not applicable
Phthalic acid, benzyl alkyl(C7-C8) ester	Not applicable	Not applicable
Treated fumed silica	Not applicable	Not applicable
Polytetrafluoroethylene	Not applicable	Not applicable
Cellulose acetate butyrate	Not applicable	Not applicable
Cumene hydroperoxide	10 lb	Not applicable
Saccharin	Not applicable	Not applicable

U.S. State Regulations

California Proposition 65 This product contains the following Proposition 65 chemicals

Component	CAS-No	California Prop. 65
Titanium dioxide	13463-67-7	carcinogen

16. OTHER INFORMATION

Prepared By Angela Hutson
Supercedes Date 10/05/2011
Issuing Date 10/30/2013
Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

Partsmaster, Div of NCH Corp. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this document 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 guide 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 such material used in combination with any other material or in any process, unless specified in the text.

SSP Material Safety Data Sheet

PRODUCT: PTFE THREAD SEAL TAPE

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer:
LAKE CITY INDUSTRIAL PRODUCTS CO.
10490 W. LAKE ROAD
LAKE CITY, PA 16423
Emergency Phone No: (814) 774-2687
Information Calls: (814) 774-2687
Product Synonym: FSH 8030-00-889-3535: FSN 8030-00-989-3S34 Contract **#:** 6S-IOF-52661

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients Percentage: None

Other Ingredients:	CAS	%
Poloytetrafluoroethylene	9002-84-0	100

Odorless, white solid tape. As sold this product present no know health hazards. At temperatures above 535° F the polymer will break down and the fumes could cause a temporary flu-like illness. No smoking while handling this product.

SECTION 3: HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS:
EYE: No harmful effects anticipated for product as sold.
SKIN CONTACT: No harmful effects anticipated for product as sold.
SKIN ABSORPTION: Skin absorption is unlikely do to the physical properties of the product.
INGESTION: No harmful effects anticipated for product as sold.
INHALATION: Inhalation is unlikely do to the physical properties of the product.

CHRONIC EFFECTS/CARCINOGENICITY:
PTFE is not listed by IARC, NTP, OSHA, or ACGIH as a carcinogen. No significate effect anticipated. Repeated oral doses of polymer resin yield non-toxic effects except for alteration in the number of circulating white blood cells after long-term dosing. Test demonstrated not developmental toxicity in animals and no genetic damage in animals or in bacterial cell cultures.

SECTION 4: FIRST AID MEASURES

INHALATION: Unlike route of entry for product sold. If exposed to fumes from overheating or combustion, move to fresh air. Consult of physician if symptoms persist.

SKIN CONTACT: This product is not likely to be hazardous by skin contact, but if redness or itching develops, then cleansing the skin with water is advisable.

EYE: Unlikely route of entry for product as sold. If mechanical irritation occurs, flush eyes with plenty of water. Consult a physician if symptoms persist.

INGESTION: Unlikely route of entry for product as sold. Consult a physician if necessary.

NOTE TO PHYSICIAN: Inhaling fumes of decomposition products can induce temporary influenza-like symptoms which are describe as polymer fume fever. These symptoms include fever, cough and malaise.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: Does not flash METHOD: Open cup

AUTOIGNITION TEMPERATURE: Not available FLAMMABILITY LIMITS: Not Applicable

EXTINGUISHING MEDIA: Water, foam, dry chemical, or CO2.

FIRE AND EXPLOSION HAZARDS: PTFE will burn in an atmosphere of 95% Oxygen when an ignition source is present. Hazardous gases/vapors product in a fire are hydrogen fluoride (HF) carbonyl fluoride, perfluoroolefins, carbon monoxide, and low molecular weight fluorocarbons.

FIRE EXTINGUISHING EQUIPMENT: Wear self-containing breathing apparatus. Wear fill protective equipment. Protect from hydrogen fluoride fumes which react with water to from hydrofluoric acid. Wear neoprene glove when handling refuse from a fire involving PTFE.

SECTION 6: ACCIDENTAL RELEASE MEASURE

Sweep to avoid slipping hazard.

SECTION 7: HANDLING AND STORAGE

Enforce not smoking rules in areas where PTFE is handled and stored. Wash hands and face after handling to avoid transfer of PTFE onto cigarettes and tobacco.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

No special personal protection or exposure controls are indicated for this product as sold except those mentioned in section 5.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	648°F
Water Solubility:	Insoluble
Odor:	None
Appearance:	White solid tape
Specific Gravity:	Greater than 1.2

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable at normal temperature and storage conditions
Hazardous Polymerization:	Will not occur
Incompatibility:	Reacts with molten alkali metals and interhalogen compounds
Hazardous Decomposition Products:	Above 535°F this product may evolve toxic gaseous material such as hydrogen fluoride (HF) carbonyl fluoride, perfluoroolefins, carbon

monoxide and low molecular weight fluorocarbons. Particulate matter evolved from overheating my cause polymer fume fever.

OTHER INFORMATION: No shelf life. The federal government has established a three year inspection test date.

Waste disposal: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Preferred option for disposal are recycling and landfill. Incinerate only incinerator is capable of scrubbing out hydrogen fluoride or other acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, state and local regulation.

DOT: Not regulated TSCE Inventory: Listed

SARA313/302: Not listed 311/312: Not hazardous Pennsylvania: Hazardous Substance List

References: Supplier MSDA

(This information is given in good faith, but no warranty, expressed or implied is made.)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifiers

Product name	:	Victaulic Lubricant New Formulation
Product number	:	LUBE2
Product type	:	Lubricant

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

Relevant identified uses	:	Lubricant
Uses advised against	:	None known.

1.3. Details of the supplier of the safety data sheet

Company

Victaulic Company (US & World Headquarters)
4901 Kesslersville Road
Easton, PA 18040
+1 (610) 559-3300
Email address: PickVic@victaulic.com
web: www.victaulic.com

Victaulic Company of Canada ULC
500 Deerhurst Drive
Brampton, Ontario L6T 5H9
+1 (905) 884-7444
Email address: VicCanada@victaulic.com

Victaulic Mexico Regional Office
Circuito del Marques No. 8-11
Parque Industrial el Marques
El Marques, Queretaro 76247
+52 442 253 0066
Email address: LA_Marketing@latam.victaulic.com

1.4. Emergency telephone numbers: 24-Hour Emergency Contact

For Chemical Emergency: spill, leak, fire, exposure, or accident, call CHEMTREC® 24-hour service.	:	Europe/International: 00-1-703-741-5970 (collect calls accepted) USA/Canada: 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

As supplied to our Customers, Victaulic Lubricant New Formulation is a water dispersible pipe joint lubricant. Direct contact with this material may result in eye irritation thus it is considered hazardous according to OSHA 29 CFR 1910.1200, the hazard criteria of the Hazardous Products Regulation (HPR), and the Harmonized System for the Identification and Communication of Hazards and Risks due to Hazardous Chemical Substances in the Workplace, NOM-018-STPS-2015. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.1. Classification of the Substance or Mixture

Classification (GHS-Revision 7)	:	Eye irritation – (Category 2)
Hazard Pictogram(s)	:	
Signal Word	:	Warning
Hazard Statement(s)	:	H319 Causes serious eye irritation.
Precautionary Statement(s)	:	P280 Wear eye protection and face protection. P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention.
Supplemental Hazard Information	:	Not applicable

2.2. Other Hazards

This product is formulated and contains components that are encapsulated in a matrix that will generally preclude hazardous exposure. While Mica (CAS: 12001-26-2) does contain a potential respirable carcinogen and respiratory irritant, it is not expected that during the foreseeable use of this product that any exposure will occur resulting in inhalation of such hazard(s).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Name	CAS No.	Weight % (w/w)
Mica	12001-26-2	15-45
Potassium Tallate	61788-65-6	5-10

Additional information: For full text of Hazard Statements, see Section 16.

SECTION 4: DESCRIPTION OF FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	:	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Inhalation	:	Move to fresh air. Call a physician if symptoms develop.
Skin contact	:	Wash off with soap and water. Get medical attention if irritation persists.
Eye contact	:	Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.
Ingestion	:	Rinse mouth. Get medical attention if symptoms occur.
Note to physicians	:	Treat symptomatically.
Self-protection of person administering first aid	:	Avoid contact with eyes or fumes.

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

Direct contact with eyes can cause irritation. Direct contact with skin may cause skin irritation.

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	:	Water. Water spray (fog). Alcohol resistant foam. Carbon dioxide (CO_2). Dry chemical.
Unsuitable extinguishing media	:	CAUTION: Use of water spray when fighting fire may be inefficient.

5.2. Special hazards arising from the substance or mixture

Hazardous Combustion Products : No information available.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus, pressure-demand and full protective great. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Avoid contact with the skin and eye. For personal protection, see section 8 of the SDS.

6.1.1. For non-emergency personnel

Dike to collect large liquid spills. Prevent leakage or spillage if safe to do so.

6.1.2. For emergency responders

Ensure adequate ventilation, especially in confined areas. Avoid inhalation of this product.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground

6.3. Methods and material for containment and cleaning up

Dam up. Soak up with inert absorbent material. Place the bulk of any spilled material into properly labeled containers. Rinse any remaining material to sewage treatment facility. For waste disposal, see section 13 of the SDS.

6.4. Reference to other sections

Follow safe handling practices as prescribed in Section 7. Use protective equipment as prescribed in Section 8. Dispose of in accordance with Section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Observe good industrial hygiene practices. See Section 8 for exposure guidelines.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep in properly labeled containers. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Paste compound.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

None known

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use only appropriately classified electrical equipment and powered industrial trucks.

8.2.2. Personal protection equipment

8.2.2.1.	Eye and face protection	: Wear safety glasses with side shields (or goggles).
8.2.2.2.	Skin protection	
	Hand protection	: Wear appropriate chemical resistant gloves.
	Other skin protection	: Wear suitable protective clothes.
8.2.2.3.	Respiratory protection	: None should be needed. In case of insufficient ventilation, wear suitable respiratory equipment.
8.2.2.4.	Thermal hazards	: None needed.

8.2.3. Environmental exposure controls

Substance/mixture related measures to prevent exposure	:	Not applicable
Instruction measures to prevent exposure	:	Not applicable
Organizational measures to prevent exposure	:	Not applicable
Technical measures to prevent exposure	:	Not applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance (Physical state, color/colour)	:	Paste, off-white
Odor/Odour	:	Bland
Odor/Odour Threshold	:	Not applicable
pH (25°C)	:	~ 9 (5% solution)
Melting Point/Freezing Point	:	< 32°F (0°C)
Boiling Point/Boiling Range	:	> 219°F (104°C)
Flash Point	:	> 219°F (104°C)
Evaporation Rate:	:	No data available
Flammability (solid, liquid, gas)	:	Not applicable
Upper Explosion Limit (UEL)	:	Not applicable
Lower Explosion Limit (LEL)	:	Not applicable
Vapor/Vapour Pressure	:	Not applicable
Vapor/Vapour Density	:	Not applicable
Specific Gravity	:	1.1-1.2
Density (g/cm^3)	:	1.1-1.2
Solubility	:	Complete
Partition Coefficient: n-octanol/water	:	Not applicable
Auto-ignition Temperature	:	Not applicable
Decomposition Temperature	:	No data available
Kinematic Viscosity (mm^2/s)	:	Not applicable
Explosive Properties	:	No data available
Oxidizing Properties	:	No data available
Molecular Weight	:	No data available
Particle Characteristics	:	Not applicable

9.2. Other information

Formation of Explosible Dust/Air Mixtures	:	No data available
Minimum Ignition Temperature	:	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

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

10.2. Chemical stability

Material is stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Contact with incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity	:	74.6% of the mixture consists of component(s) of unknown acute oral toxicity. 74.6% of the mixture consists of component(s) of unknown acute dermal toxicity.
Component toxicity	:	Mica Inhalation LC50 (rat): No data available Oral LD50 (rat): No data available Dermal LD50 (rat): No data available
Skin corrosion/irritation	:	Direct contact causes mild skin irritation.
Serious eye damage/irritation	:	Direct contact causes eye irritation.
Respiratory or skin sensitization	:	Not expected to cause sensitization.
Germ cell mutagenicity	:	This product is not expected to cause mutagenic or genotoxic effects.
Carcinogenicity	:	This product is not expected to be carcinogenic to humans
Reproductive toxicity	:	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - Single exposure (STOT-Single Exposure)	:	May cause respiratory irritation.
Specific target organ toxicity - Repeated exposure (STOT-Repeated Exposure)	:	Not classified.
Aspiration hazard	:	Not an aspiration hazard.

11.2. Information on likely routes of exposure

Eye contact causes eye irritation. Skin contact causes skin irritation.

11.3. Symptoms related to the physical, chemical, and toxicological characteristics

Eyes	:	Direct contact to the eye will cause tearing, discomfort, burning, itching, redness, and pain.
Skin	:	Direct contact to the skin may cause tearing, discomfort, burning, itching, redness, and pain.
Inhalation	:	Not expected to cause symptoms.
Ingestion	:	Not expected to cause symptoms.

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

Excessive exposures will cause serious irritation to the skin and eyes.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No specific test data available for the product.

12.2. Persistence and degradability

No specific test data available for the product

12.3. Bioaccumulative potential

No specific test data available for the product

12.4. Mobility in soil

No specific test data available for the product

12.5. Results of PBT and vPvB assessment

No specific test data available for the product

12.6. Endocrine disrupting properties

No specific test data available for the product

12.7. Other adverse effects

No specific test data available for the product

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Prevent the entry of the product into sewers and aquatic environments.

Responsibility for proper waste disposal is with the owner of the waste. Dispose of contents in accordance with local, regional, national, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number

Not regulated

14.2. UN proper shipping name

Not regulated

14.3. Transport hazard class(es)

Not regulated

14.4. Packing group

Not regulated

14.5. Environmental hazards

Not regulated

14.6. Special precautions for user

See Sections 6 to 8 of this SDS.

14.7. Maritime transport in bulk according to IMO instruments

See above transportation classification.

SECTION 15: REGULATORY INFORMATION

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

United States Regulatory Information

TSCA Status

All components of this product are listed or exempt from the Toxic Substances Control Act (TSCA) Inventory requirements.

SARA (Section 311/312):

Reactive hazard	:	No
Pressure hazard	:	No
Fire hazard	:	No
Immediate/acute toxicity	:	No
Delayed/chronic toxicty	:	No

SARA Section 313 Information

This product does not contain any toxic chemicals listed under 313 of the Emergency Planning and Community Right-to-Know-Act of 1986 (EPCRA).

Clean Air Act (CAA)

Contains no toxic pollutants or priority pollutants at concentrations greater than 0.1%.

Volatile Organic Compounds (VOCs)

Contains no known toxic pollutants or priority pollutants at concentrations greater than 0.1%.

State Right-to-Know Status

California Proposition 65	:	Does not contain ingredients known to the State of California to be carcinogenic or reproductive/developmental toxicants greater than 0.1%.
Massachusetts	:	Mica (CAS 112001-26-2)
Minnesota	:	Mica (CAS 112001-26-2)
New Jersey	:	Mica (CAS 112001-26-2)
Pennsylvania	:	Mica (CAS 112001-26-2)

SECTION 15: REGULATORY INFORMATION (Continued)

Canada Regulatory Information

Canadian Environmental Protection Act, 1999 (CEPA) Status

This product has been classified in accordance with the hazard criteria of the Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR).

Domestic/Non-domestic Substances List (DSL/NDSL) Status

All components of this product are listed or exempt from listing on the Canadian Domestic Substances List.

Mexico Regulatory Information

Hazardous Substances in the Workplace codified in Official Mexican Standard NOM-028-STPS-2012

No data were identified for this product or its constituents.

List of Substances Most Commonly Transported codified in Official Mexican Standard NOM-002-SCT/2011

No data were identified for this product or its constituents.

Workplace Fire Safety Codified in Official Mexican Standard NOM-002-STPS-2010

No flammable hazardous ingredients were identified for this product or its constituents.

Safe Storage of Hazardous Substances in the Workplace codified in Official Mexican Standard NOM-005-STPS-1998

No data were identified for this product or its constituents.

SECTION 16: OTHER INFORMATION

List of Relevant Hazard Statements

H319	:	Causes serious eye irritation

Abbreviations

ACGIH	:	American Council of Governmental Industrial Hygienists
°C	:	Degrees Celsius
CAA	:	Clean Air Act
CAS No.	:	Chemical Abstracts Service Registry Number
CFR	:	Code of Federal Regulations
CLP	:	Classification, Labelling, and Packaging
CO_2	:	Carbon Dioxide
CO	:	Carbon Monoxide
CWA	:	Clean Water Act
EPCRA	:	Emergency Planning and Community Right-to-Know Act of 1986
°F	:	Degrees Fahrenheit
GHS	:	Globally Harmonized System of Classification and Labeling
g/cm^3	:	Grams per centimeter cubed
g/mL	:	Grams per milliliter
ID	:	Identification
IMO	:	International Maritime Organization
mm Hg	:	Millimeters of Mercury
mg/kg	:	Milligrams per Kilogram
mg/L	:	Milligrams per Liter
mg/m^3	:	Milligrams per cubic meter
mm^2/s	:	Millimeters squared per second
OSHA	:	Occupational Safety and Health Administration
SARA	:	Superfund Amendments and Reauthorization Act
SDS	:	Safety Data Sheet
TSCA	:	Toxic Substances Control Act
UN	:	United Nations
w/w	:	Weight for Weight

05.02 Rev. L April 19, 2023

Notice

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the Hazardous Products Regulation (HPR), and the Harmonized System for the Identification and Communication of Hazards and Risks due to Hazardous Chemical Substances in the Workplace, NOM-018-STPS-2015. 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.

VICTAULIC PROVIDES THE INFORMATION HEREIN IN GOOD FAITH; HOWEVER, THIS INFORMATION IS PROVIDED AS IS AND NO REPRESENTATION OR WARRANTY OF ANY FORM, BE IT EXPRESS OR IMPLIED, IS GIVEN IN THE PROVISION OF THIS INFORMATION, AND VICTAULIC EXPRESSLY DICLAIMS ANY SUCH WARRANTIES. REGULATORY REQUIREMENTS ARE SUBJECT TO CHANGE AND MAY DIFFER IN VARIOUS LOCATIONS. IT IS THE BUYER'S/USER'S RESPONSIBILITY TO ENSURE THAT THEIR ACTIVITIES COMPLY WITH ALL FEDERAL, STATE, LOCAL, AND COUNTRY-SPECIFIC LAWS. THE INFORMATION PRESENTED HEREIN PERTAINS ONLY TO THE NAMED PRODUCT AS SHIPPED. CONDITIONS RELEVANT TO THE USE OF THIS PRODUCT ARE NOT UNDER CONTROL OF THE MANUFACTURER. IT IS THE BUYER'S/USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS NECESSARY FOR THE SAFE USE OF THIS PRODUCT, AND VICTAULIC URGES BUYERS/USERS TO CAREFULLY STUDY THE INFORMATION CONTAINED IN THIS SDS AND CONSULT EXPERTS WHEN AND AS NECESSARY OR APPROPRIATE IN MAKING THE DECISION TO PURCHASE AND/OR USE THIS PRODUCT.

End of Safety Data Sheet

Safety Data Sheet

1 - Identification

Product Name: WD-40 Specialist® Gel Lube **Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion** **Restrictions on Use: None identified** **SDS Date Of Preparation: March 9, 2020**	**Manufacturer: WD-40 Company** **Address: 9715 Businesspark Avenue San Diego, California, USA 92131** **Telephone:** **Emergency: 1-888-324-7596** **Information: 1-888-324-7596** **Chemical Spills: 1-800-424-9300 (Chemtrec)** **1-703-527-3887 (International Calls)**

2 – Hazards Identification

Hazcom 2012/GHS Classification:
Flammable Aerosol Category 1
Gas Under Pressure: Compressed Gas

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:

DANGER!
Extremely Flammable Aerosol.
Contains gas under pressure; may explode if heated.
Prevention
Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Storage
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
Petroleum Base Oils	Mixture	20-40%	Not Hazardous
Non-Hazardous Ingredients	Mixture	20-30%	Not Hazardous
LVP Aliphatic Hydrocarbon	64742-47-8	10-20%	Aspiration Toxicity Category 1
Propane	74-98-6	10-20%	Flammable Gas Category 1 Simple Asphyxiant Gas Under Pressure,

			Compressed Gas
Aliphatic Hydrocarbon	64742-47-8	5-10%	Aspiration Toxicity Category 1

Note: The exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): While aspiration is unlikely due to viscosity, do not induce vomiting. Rinse mouth with water. Call a physician, poison control center, or the WD-40 Safety Hotline at 1-888-324-7596.
Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.
Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.
Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.
Signs and Symptoms of Exposure: May cause eye and respiratory irritation. Inhalation may cause coughing, headache and dizziness. Skin contact may cause drying of the skin.
Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is not required.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.
Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon, aldehydes and hydrocarbons.
Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.
Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.
Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Petroleum Base Oils	5 mg/m3 TWA ACGIH TLV (Inhalable) 5 mg/m3 TWA OSHA PEL
Non-Hazardous Ingredients	None Established
LVP Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)

Propane	1000 ppm TWA OSHA PEL
Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)

The Following Controls are Recommended for Normal Consumer Use of this Product
Appropriate Engineering Controls: Use in a well-ventilated area.
Personal Protection:
Eye Protection: Avoid eye contact. Always spray away from your face.
Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.
Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended:
Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.
Personal Protection:
Eye Protection: Safety goggles recommended where eye contact is possible.
Skin Protection: Wear chemical resistant gloves.
Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.
Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Light amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	Not established
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	Not established
Melting/Freezing Point	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	430 - 520°F (221 - 271°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	>156°F (>69°C) Tag Closed Cup (estimated)	Autoignition Temperature:	Not established
Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas)	Extremely Flammable Aerosol	Viscosity:	626 SUS (135.2 cSt) @ 100°F
VOC:	24.9% MIR=0.44 gO3/gVOC	Pour Point:	Not established
Aerosol Flame Extension (16CFR)	>18 inches	Flashback	Yes
Specific Gravity:	0.85-0.90 @ 77°F (25°C)		

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions
Chemical Stability: Stable
Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.
Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide, hydrocarbons, aldehydes.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.
Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.
Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.
Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic Effects: None expected.
Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.
Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:
The oral toxicity of this product is estimated to be greater than 5,000 mg/kg and the dermal toxicity greater than 2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms
Persistence and Degradability: Not determined.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available
Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

14 – Transportation Information_

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:
CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.
SARA TITLE III:
Hazard Category For Section 311/312: Refer to Section 2 for the OSHA Hazard Classification.
Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None
Section 302 Extremely Hazardous Substances (TPQ): None
EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.
Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List.

16 – Other Information:

HMIS Hazard Rating:
Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: March 9, 2020 Supersedes: March 5, 2019

Revision Summary: Updated Section 2, 4, 9, 11, and 15.

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed By: I. Kowalski Regulatory Affairs Department

1018200 / No.0106804

GHS SAFETY DATA SHEET

Date Revised: **JUL 2018**

Weld-On® Light Cutting Oil

Supersedes: **APR 2015**

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Weld-On® Light Cutting Oil**

PRODUCT USE: Cutting Oil

SUPPLIER:

MANUFACTURER: IPS Corporation
17109 South Main Street, Gardena, CA 90248-3127
P.O. Box 379, Gardena, CA 90247-0379
Tel. 1-310-898-3300

EMERGENCY: Transportation: CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International) **Medical:** CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Health		Environmental		Physical
Acute Toxicity:	Category 4	Acute Toxicity:	None Known	None Known
Skin Irritation:	Category 3	Chronic Toxicity:	None Known	
Skin Sensitization:	NO			
Eye:	Category 2B			

GHS LABEL: 

Signal Word:
Warning

WHMIS CLASSIFICATION: None

Hazard Statements	Precautionary Statements
H316: Causes mild skin irritation	P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
H302: Harmful if swallowed	P261: Avoid breathing fume/gas/mist/vapors/spray
H320: Causes eye irritation	P280: Wear protective gloves/protective clothing/eye protection/face protection
	P403+P233: Store in a well ventilated place. Keep container tightly closed
	P501: Dispose of contents/container in accordance with local regulation

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

	CAS#	EINECS #	REACH Pre-registration Number	CONCENTRATION % by Weight
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	649-454-00-7	Under development	60 - 80%
Heavy Hydrotreated Naphthenic Distillates	64742-52-5	265-155-0	Under development	10 - 20%
Chlorinated Paraffin, Light Blend	PROPRIETARY		Under development	5 - 30%

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.
* Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).
# indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

Contact with eyes: Flush eyes with plenty of water for 15 minutes. Get medical attention if irritation develops or persists.
Skin contact: Wash exposed area with mild soap and water. Get medical attention if irritation develops or persists.
Inhalation: Fresh air should alleviate any respiratory discomfort. If breathing difficulties develop or persist, get medical attention.
Ingestion: Do not induce vomiting. Danger from aspirating into lungs exceeds short term toxic effects. Get immediate medical help.

Likely Routes of Exposure: Inhalation and Ingestion

Acute symptoms and effects:
Inhalation: Moderate respiratory discomfort and or/or minor headaches. Toxic systemic effect.
Eye Contact: No significant effect beyond minor irritation are expected.
Skin Contact: Moderate irritation and discomfort, defatting of skin and redness are possible. Toxic systemic effects from absorption are expected to be minor.
Ingestion: May result in discomfort or nausea.

Chronic (long-term) effects: Prolonged or repeated skin contact may cause dermatitis.

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media: Sodium Bicarbonate
Unsuitable Extinguishing Media: Water in a straight hose stream may cause fire to spread and should be used as a cooling medium only
Exposure Hazards: Mists or sprays could ignite at temperatures below the indicated flash point.
Combustion Products: Oxides of carbon and sulfur
Protection for Firefighters: Self-contained breathing apparatus or full-face positive pressure airline masks.

	HMIS	NFPA	0-Minimal
Health	1	1	1-Slight
Flammability	1	1	2-Moderate
Reactivity	0	0	3-Serious
PPE	B		4-Severe

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: Extinguish possible sources of ignition and ventilate spill area. Dike area to contain spill.
Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment.
Prevent contact with skin or eyes (see section 8).
Environmental Precautions: Do not flush into sewers or natural waterways. Non-essential personnel should not enter area due to slipping hazards.
Methods for Cleaning up: Clean up by absorbing on an inert absorbent or other convenient means.
Materials not to be used for clean up: Aluminum or plastic containers

SECTION 7 - HANDLING AND STORAGE

Handling: Avoid prolonged or repeated contact with skin and/or breathing of vapors when handling.
Keep containers closed when not in use.
Do not eat; drink or smoke while handling.
Storage: Store in a cool, dry ventilated area away from excessive heat, sparks and open flames. Do not store with oxidizing agents.
Follow all precautionary information on container label, product bulletins and literature.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:

Component	ACGIH 8 hr-TLV	ACGIH 15 min-STEL	OSHA 8 hr-PEL	OSHA 15 Min-STEL	OSHA PEL-Ceiling	CAL/OSHA 8 Hr-PEL	CAL/OSHA Ceiling	CAL/OSHA 15 Min-STEL
Heavy Hydrotreated Naphthenic Distillates	5 mg/m^3	N/E	5 mg/m^3	N/E	N/E	5 mg/m^3	N/E	N/E
Distillates (petroleum), heavy paraffinic	5 mg/m^3	N/E	5 mg/m^3	N/E	N/E	5 mg/m^3	N/E	N/E

Engineering Controls: Use local exhaust or dilution ventilation as appropriate to control vapor or mist to below permissible exposure limits
Monitoring: Maintain breathing zone airborne concentrations below exposure limits.
Personal Protective Equipment (PPE):
Eye Protection: Chemical safety goggles with splash shields.
Skin Protection: Neoprene rubber or other chemical resistant material.
Use chemical resistant boots, apron, etc. as necessary to prevent contamination of clothing and skin contact.
Respiratory Protection: Use NIOSH/MSHA approved respirators when vapors or mist concentration exceed permissible exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Colored Liquid		
Odor:	Bland Odor	**Odor Threshold:**	Not Available
pH:	Not Applicable		
Melting/Freezing Point:	Not Available		
Boiling Point:	> 260°C (500°F)	**Evaporation Rate:**	> 1.0 (BUAC = 1)
Flash Point:	177°C (350°F)	**Flammability:**	N/A
Specific Gravity:	0.9 @15.5°C (60°F)	**Flammability Limits:**	**LEL:** N/A
Solubility:	NIL		**UEL:** N/A
Partition Coefficient n-octanol/water:	Not Available	**Vapor Pressure:**	< 0.1 mm Hg @ 20°C (68°F)
Auto-ignition Temperature:	Not Available	**Vapor Density:**	> 1.0 (Air = 1)
Decomposition Temperature:	Not Available	**Other Data: Viscosity:**	Not Available
VOC Content:	Not Available		

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Hazardous decomposition products: None in normal use. When forced to burn, this product gives off oxides of carbon and sulfur.

Conditions to avoid: Exposure to excessive heat, open flames and sparks. Avoid conditions that favor the formation of excessive mists and/or fumes.

Incompatible Materials: Avoid strong oxidizing materials.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity:	LD_{50}	LC_{50}
Severely Hydrotreated Heavy Naphthenic Oil	Oral: >5 000 (rat) Dermal: >2 000 (rabbit)	2 180 mg/m3 (rat) - 4 hours

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: Petroleum distillates can have adverse effects on aquatic ecosystems.

Mobility: In normal use, minimal emission of volatile organic compounds (VOC's) to the air takes place.

Degradability: Product is not readily biodegradable.

Bioaccumulation: Not Available

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult disposal expert.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name:	Not Regulated
Hazard Class:	NA
Secondary Risk:	NA
Identification Number:	NA
Packing Group:	NA
Label Required:	NA
Marine Pollutant:	NA

SECTION 15 - REGULATORY INFORMATION

Precautionary Label Information: Irritant

Symbols: Xi

Risk Phrases: R36/37: Irritating to eyes and respiratory system.

Safety Phrases: S2: Keep out of the reach of children
S9: Keep container in a well-ventilated place.
S16: Keep away from sources of ignition - No smoking.

Ingredient Listings: USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS)

R66: Repeated exposure may cause skin dryness or cracking

S25: Avoid contact with eyes.

SECTION 16 - OTHER INFORMATION

Specification Information:

Department issuing data sheet: IPS, Safety Health & Environmental Affairs

E-mail address: <EHSinfo@ipscorp.com>

All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances).

Training necessary: Yes, training in practices and procedures contained in product literature.

Reissue date / reason for reissue: 7/2/2018 / Updated GHS Standard Format

Intended Use of Product: Cutting Oil

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

ANTI-SEIZE TECHNOLOGY
A.S.T. Industries, Inc.

Zinc Cold Galvanizing Spray
Aerosol
SAFETY DATA SHEET

Section 1- Product and Company Identification

Product Code: 17045

Manufacture/Supplier : Anti-Seize Technology
2345 N. 17th Ave.
Franklin Park, IL 60131

Phone: 847-455-2300
Fax: 847-455-2371
Web: antiseize.com
Emergency Phone, 24 hr: Infotrac @ 1-800-535-5053 (US & Canada)
1-352-323-3500 (International)
Web: infotrac.net

Product Use: Galvanizing Spray
Restriction of Use: Only as directed

Date: May 19, 2015

Section 2-Hazard Identification

GHS Classification (Hazcom 2012):
Flammable aerosol—Category 1
Gas under pressure—Liquefied Gas
Acute Toxicity-Dermal—Category 4
Skin Corrosion/Irritation—Category 3
Eye Damage/Irritation—Category 2B
Carcinogenicity—Category 2

Label Elements:

Signal word: DANGER

Hazard Phrases:
Extremely flammable aerosol
Contains gas under pressure, may explode if heated
Harmful in contact with skin
Causes mild skin irritation
Causes eye irritation
Suspected of causing cancer

Precautionary Phrases: Prevention
Keep away from heat/sparks/open flames/ hot surfaces. No smoking
Do not spray on an open flame or other ignition source
Pressurized container. Do not pierce or burn, even after use.
Wash hands and face thoroughly after handling
Wear protective gloves/protective clothing/ eye protection/face protection
Use personal protective equipment as required
Wash contaminated clothing before reuse
Avoid breathing dust/fume/gas/mist/vapors/spray

Precautionary Phrases: Response:
IF ON SKIN: Wash with soap and water
IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing. If exposed or concerned: Get medical advice/attention.
IF SWALLOWED: Do NOT induce vomiting.
If eye irritation persists: Get medical advice/attention.
If skin irritation occurs: Get medical advice/attention

Storage:
Store locked up
Protect from sunlight. Store in a well ventilated place.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F

Disposal:
Dispose of contents in accordance with local, regional and national regulations.
Other Hazards: Toxic to aquatic life with long lasting effects

Section 3- Composition/ Information on Ingredients

CHEMICAL	CAS NUMBER	PERCENT
ZINC; ZINC DUST	7440-66-6	40-60
2-BUTANONE, METHYL ETHYL KETONE	78-93-3	15-30
PROPANE	74-98-6	10-15
XYLENE, MIXED ISOMERS	1330-20-7	5-10
HEXONE, METHYL ISOBUTYL KETONE	108-10-1	5-10
ALKYD RESIN		5-10
PETROLEUM DISTILLATE	8052-41-3	1-4
ETHYL BENZENE	100-41-4	1-1.6
n-BUTYL ACETATE	123-86-4	1-1.5

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

Section 4 – First Aid Measures

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

Skin: I case of contact, wash thoroughly with plenty of water. Get medical attention if irritation persists.

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

Ingestion: Aspiration Hazard. DO NOT induce vomiting. Get immediate medical attention.

Most Important symptoms and effects, both acute and delayed: Causes eye and skin irritation. Product is an aspiration hazard. May enter the lungs during swallowing or vomiting and cause lung damage. Inhalation may cause irritation, headache, dizziness and drowsiness.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention required for ingestion.

Section 5 – Fire Fighting Measures

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

Special Hazards Arising from the Chemical: Extremely flammable aerosol. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 120°F may cause cans to burst. Combustion may produce carbon dioxide, carbon monoxide.

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

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Eliminate all sources of ignition with explosion-proof equipment. Ventilate area.

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

Methods and Material for Containment and Cleaning Up: Place leaking container into a suitable container and place in a well-ventilated area until the propellant has dissipated. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal.

Section 7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid breathing vapors and mists. Use with adequate ventilation. Keep away from heat sources. Contents under pressure. Do not puncture or incinerate container. Do not smoke while using.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area at temperatures below 120°F. Do not store in direct sunlight.

Section 8 – Exposure Controls / Personal Protection

CHEMICAL NAME	EXPOSURE LIMITS
ZINC; ZINC DUST	5mg/m3, OSHA PEL, as dust 10mg/m3, ACGIH TLV, as dust
2-BUTANONE, METHYL ETHYL KETONE	
PROPANE	1000ppm ACGIH TLV
XYLENE, MIXED ISOMERS	100ppm, OSHA PEL 100ppm ACGIH TLV
HEXONE, METHYL ISOBUTYL KETONE	100ppm OSHA PEL

	20ppm, ACGIH TLV, TWA
ALKYD RESIN	Not established
PETROLEUM DISTILLATE	400ppm, ACGIH TLV-TWA
ETHYL BENZENE	100ppm, OSHA TWA, 8 hrs. 100ppm ACGIH TWA, 8 hrs.
n-BUTYL ACETATE	

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

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

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact .

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

Section 9 – Physical and Chemical Properties

Appearance: silver gray aerosol	**Vapor Density (air = 1):** heavier than air
Odor: solvent like until dry	**Specific Gravity:** 1.23
Odor Threshold: Not established	**Water Solubility:** Not soluble
pH: Not available	**Octanol/Water Partition Coefficient:** Not available
Melting Point/Freezing Point: No data	**Autoignition Temperature:** Not available
Boiling Point: No data	**Decomposition Temperature:** Not available
Flash Point: Not determined	**Viscosity:** Not available
Evaporation Rate: slower than ether	**Explosion Properties:** None
Flammable Limits: **LEL**: Not established **UEL:** Not established	**Oxidizing Properties:** Not oxidizing
Vapor Pressure: Not established	**Aerosol Fire Protection Level: 3**

Section 10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Use with strong oxidizing chemicals such as concentrated acids.

Incompatible Materials: Avoid strong oxidizing agents and acids.

Hazardous Decomposition Products: The thermal decomposition products are highly dependent upon the combustion conditions. Noxious or toxic fumes may be generated, some of which may be toxic or irritating.

Section 11 – Toxicological Information

Long term Toxicological studies have not been conducted for this product

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause mild irritation of the skin.

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

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

.

Chronic Hazards: Prolonged inhalation of thermal decomposition products may result in lung damage.

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

Section 12 – Ecological Information

Long term ecological studies have not been conducted for this product

Ecotoxicity: No Data

Bioaccumulative Potential: No Data

Mobility in Soil: No Data

Other Adverse Effects: No Data

Section 13 – Disposal Consideration

Waste disposal: Dispose of in a responsible manner. Follow local, state and federal guidelines. Do not discharge into sewers or waterways. Incineration is the preferred method of disposal, although it may be landfilled at an approved facility.

Section 14- Transport Information

DOT Proper Shipping Name: UN1950, Aerosols, 2.1, Limited Quantity
DOT Technical Name: None
DOT Hazard Class: 2.1
UN Number: UN1950
DOT Labels Required (49CFR172.101): LTD QTY

IMDG Shipping Description: UN1950, Aerosols, 2.1, FP -17 C, Limited Quantity,
ID Number: UN1950
Hazard Class: 2.1
Packing Group: None
Labels Required: None
Marking Required: Limited Quantity Mark
Placards Required: Limited Quantity and Marine Pollutant Mark On Transport Containers

ICAO/IATA
Proper shipping name: Aerosol, Flammable
Hazard Class: 2.1, LTD QTY
Identification Number: UN 1950
Packing Group: 2.1
Packing instruction Y203

Section 15 – Regulatory Information

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

CERCLA Hazardous Substances (Section 103)/RQ:

SARA Hazard Category (311/312): Fire Hazard, Pressure Hazard, Acute Health

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

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

CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

Section 16 – Other Information:

The information contained herein is based on data considered accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results obtained from the use of his product. Therefore, because the product may be used under conditions beyond our control, we assume no liability for its use.

Smoke Centurion

SAFETY DATA SHEET

SDS0089US-EN

ACCORDING TO US CFR 1910.1200

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	Smoke Centurion.
Trade Name	M8 Smoke-01-XXX (XXX denotes customer variant).
CAS No.	Mixture.
EINECS No.	Mixture.
REACH Registration No.	None assigned.

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

Identified Use(s)	Smoke simulation.
Uses Advised Against	None known.

1.3 Details of the supplier of the safety data sheet

Company Identification	SDi, LLC, 3535 State Highway 66, Parkway 100 Building 6, Neptune NJ07753, USA.
Telephone	(732) 751 9266
Fax	(732) 751 9241
E-mail	sales@sdifire.com

1.4 Emergency telephone number

Info Trac	1-800-535-5053

1.5 Address of Manufacturer

	Detectortesters (No Climb Products Ltd), Edison House,163 Dixons Hill Road Welham Green, Hertfordshire. AL9 7JE. United Kingdom
Telephone	+44 (0) 1707 282760
Fax	+44 (0) 1707 282777
E-mail	SDS@detectortesters.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

US CFR 1910.1200 Flam. Aerosol 1: Extremely flammable aerosol.

2.2 Label elements Smoke Centurion

Hazard Pictogram(s)

GHS02

Signal Word(s)	Danger.
Hazard Statement(s)	H222: Extremely flammable aerosol.
Precautionary Statement(s)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211: Do not spray on an open flame or other ignition source. P251: Pressurised container - Do not pierce or burn, even after use. P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

2.3 Other hazards None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product as supplied: Aerosol.

3.1 Mixtures

Hazardous Ingredient(s)	CAS No.	%W/W
Butane	106-97-8	50 - 100
Propane	74-98-6	10 - 25
Ethanol	64-17-5	0 - 5

3.2 Additional Information

None.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact	Wash skin with soap and water.
Eye Contact	Flush eyes with water for at least 15 minutes while holding eyelids open.
Ingestion	Unlikely route of exposure.

4.2 Most important symptoms and effects, both acute and delayed None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Pressurised container: May burst if heated.

5.1 Extinguishing media

Suitable Extinguishing media	Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Unsuitable extinguishing media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture Heating may cause pressure rise with risk of bursting.

5.3 Advice for fire-fighters Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

The product is an aerosol. It is unlikely to present spillage or leakage hazard. In case of rupture, released content should be contained as any other solvent spill.

6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Wear suitable gloves and eye/face protection.

6.2 Environmental precautions Do not release large quantities into the surface water or into drains.

6.3 Methods and material for containment and cleaning up Collect mechanically and dispose of according to Section 13. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery. Containers must not be punctured or destroyed by burning, even when empty.

6.4 Reference to other sections See Also Section: 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Provide adequate ventilation. Do not eat, drink or smoke during work. Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities Observe official regulations on storing packagings with pressurised containers.

Storage temperature	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 122°F.
Storage life	Stable under normal conditions.
Incompatible materials	None anticipated.

7.3 Specific end use(s) Smoke simulation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Butane	106-97-8	800	1900	-	-	NIOSH
Propane	74-98-6	1000	1800	-	-	NIOSH
		1000	1800	-	-	PEL (OSHA)
Ethanol	64-17-5	1000	1900	-	-	NIOSH
		1000	1900	-	-	PEL (OSHA)

Source:
NIOSH = National Institute of Occupational Safety & Health
OSHA = Occupational Safety and Health Administration

8.2 Appropriate engineering controls — Provide adequate ventilation.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/ face protection — If eye contact is likely: Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other) — Wear suitable gloves if prolonged skin contact is likely.
Gloves: Nitrile rubber, NBR.

Respiratory protection — No personal respiratory protective equipment normally required. Handling of larger amounts: In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards — Not applicable.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	Not determined.
pH	Not determined.
Melting point/freezing point	Not determined.
Initial boiling point and boiling range	-47.4°F (-44°C)
Flash Point	<32°F (<0°C)
Evaporation rate	Not available.
Flammability (solid, gas)	Extremely flammable.
Upper/lower flammability or explosive limits	Explosive Limit Ranges: 1.5 – 15.0 Vol-%
Vapour pressure	62.4 psig (4.3 bar) @ 68°F
Density	36.2 lb/ft^3 (0.58 g/cm³) @ 68°F
Vapour density	Not determined.
Relative density	Not determined.
Solubility(ies)	Immiscible with water.
Partition coefficient: n-octanol/water	Not determined.
Ignition temperature	689°F (365°C)
Auto-ignition temperature	Product is not selfigniting.
Decomposition Temperature	Not determined.
Kinematic Viscosity	Not determined.
Explosive properties	Not explosive.

	Oxidising properties	Not oxidising.
9.2	**Other information**	
	Organic solvents – Content	96.4%

SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Stable under normal conditions.
10.2	**Chemical stability**	Stable under normal conditions.
10.3	**Possibility of hazardous reactions**	Stable under normal conditions.
10.4	**Conditions to avoid**	Heat and direct sunlight.
10.5	**Incompatible materials**	None anticipated.
10.6	**Hazardous decomposition product(s)**	None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	**Information on toxicological effects**	
11.1.1	**Mixtures**	
	Acute toxicity	Low acute toxicity.
	Irritation	Non-irritant.
	Corrosivity	Not classified.
	Sensitisation	It is not a skin sensitiser.
	Repeated dose toxicity	None anticipated.
	Carcinogenicity	No evidence of carcinogenicity.
	Mutagenicity	There is no evidence of mutagenic potential.
	Toxicity for reproduction	None anticipated.
	Aspiration hazard	None anticipated.
11.2	**Other information**	None.

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Low toxicity to aquatic organisms.
12.2	**Persistence and degradability**	The product is readily biodegradable. Unlikely to persist.
12.3	**Bioaccumulative potential**	The product has no potential for bioaccumulation.
12.4	**Mobility in soil**	Immiscible with water. The product is predicted to have low mobility in soil.
12.5	**Results of PBT and vPvB assessment**	Not classified as PBT or vPvB.
12.6	**Other adverse effects**	None.

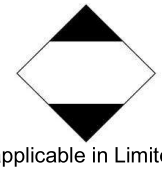
SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Non-emptied aerosol: Dispose of wastes in an approved waste disposal facility. Do NOT landfill.
13.2	**Additional Information**	Disposal should be in accordance with local, state or national legislation.

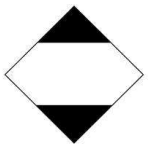
SECTION 14: TRANSPORT INFORMATION

14.1	**UN number**	
	ADR, IMDG, IATA	UN 1950
14.2	**UN proper shipping name**	
	ADR	1950 AEROSOLS
	IMDG	AEROSOLS
	IATA	AEROSOLS, Flammable
14.3	**Transport hazard class(es)**	
	ADR	
	Class / Classification	2 5F Gases.
	Label	2.1
	IMDG, IATA	
	Class / Division	2.1
	Label	2.1

14.4	**Packing group**	
	ADR, IMDG, IATA	None.
14.5	**Environmental hazards**	
	Marine Pollutant	No.
14.6	**Special precautions for user**	Warning: Gases.
	Kemler Code	-
	IMDG EMS	F-D, S-U
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	Not applicable.
14.8	**Additional Information**	
	ADR	
	Limited Quantity (LQ)	1 L



ADR Transport Category	2
Tunnel Restriction Code	Not applicable in Limited Quantities.
IMDG	
Limited Quantity (LQ)	1L



IATA	
Limited Quantity (LQ)	1L

UN Model Regulation	UN 1950, AEROSOLS, 2.1
US	ORM-D when transported in limited quantities (< 30kg or 66lb gross weight).

SECTION 15: REGULATORY INFORMATION

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

15.1.1	**OSHA**	
	Toxic and hazardous substances (29 CFR 1910; Subpart Z)	Listed: Propane (CAS No.: 74-98-6) Listed: Ethanol (CAS No.: 64-17-5)
	National emission standards for hazardous air pollutants (40 CFR 61.01)	All chemicals are not listed.
15.1.2	**Title III Consolidated List of Lists**	Listed: Butane (CAS No.: 106-97-8) Listed: Propane (CAS No.: 74-98-6)
	Clean Air Act Section 112(r) Threshold Quantity	10000
15.1.3	**OSPAR List of Chemicals for Priority Action**	All chemicals are not listed.
15.1.4	**State Right to Know Lists**	Butane (CAS No.: 106-97-8): New Jersey, Pennsylvania, Massachusetts, Rhode Island. Propane (CAS No.: 74-98-6): New Jersey, Pennsylvania, Massachusetts. Ethanol (CAS No.: 64-17-5): New Jersey, Pennsylvania, Massachusetts.
15.1.5	**TSCA (Toxic Substance Control Act)**	All chemicals listed.
15.1.6	**Proposition 65 (California)**	All chemicals are not listed
15.1.7	**CAA 602 - Ozone Depleting Substances (ODS)**	All chemicals are not listed.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: None.

NFPA		HMIS	
Health	1	Health	1
Fire	4	Flammability	4
Instability	0	Physical hazards	0

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
NIOSH	National Institute of Occupational Safety & Health
PEL	Permissible Exposure Limits
CAA	Clean Air Act
OSHA	Occupational Safety and Health Administration
OSPAR	Oslo and Paris Convention
ADR	Accord européen elative au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association

Disclaimers

The information is based on the best knowledge of SDi and its advisors and is given in good faith, but we cannot guarantee its accuracy, reliability or completeness and therefore disclaim any liability for loss or damage arising out of use of this data. Since conditions of use are outside the control of the Company and its advisors we disclaim any liability for loss or damage when the product is used for purposes other than it is intended.

Annex to the extended Safety Data Sheet (eSDS)

No information available.

SAFETY DATA SHEET

LPS 1 GREASELESS LUBRICANT (AEROSOL SPRAY CAN)

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

PRODUCT NAME: LPS 1 GREASELESS LUBRICANT (AEROSOL SPRAY CAN)

PART No.: M01400

SUPPLIER: Ambersil Ltd.
Castlefield Industrial Estate, Wylds Rd, Bridgwater, Somerset, UK, TA6 4DD

TEL: +44 (0)1278 424200
FAX: +44 (0)1278 425644

EMERGENCY TELEPHONE(S): +44 (0) 1278 424200

Supplied by:
RS Components Ltd,
Birchington Road, Corby, Northants, NN17 9RS.
Tel: (01536) 402888

2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	EINECS No.	CAS No.	CONTENTS	SYMBOL	RISK (R No.)
ODOURLESS KEROSENE	265-149-8	64742-47-8	60-100 %	Xn	65
ALIPHATIC HYDROCARBON	265-130-4	64742-30-9	10-30 %	Fo, Xn	10, 65
CARBON DIOXIDE	204-696-9	124-38-9	1-5 %	NC	Not classified.

The full text for all R-phrases are shown in section 16.

COMPOSITION COMMENTS: Risk phrases in this section apply only to individual constituents and not the finished preparation.

3 HAZARDS IDENTIFICATION

Extremely flammable.

4 FIRST AID MEASURES

INHALATION: If inhaled, provide fresh air. Seek medical attention if irritation persists.
INGESTION: DO NOT induce vomiting. Seek medical attention immediately and show this safety data sheet.
SKIN: Wash affected area with soap and water. If irritation persists seek medical attention.
EYES: In case of contact with eyes, rinse with water until irritation subsides. If irritation persists, seek medical attention.

LPS 1 GREASELESS LUBRICANT (AEROSOL SPRAY CAN)

5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Powder, foam or CO2. Do not use a water jet.

HAZARDOUS DECOMPOSITION PRODUCTS:
Oxides of carbon, noxious fumes.

PROTECTIVE MEASURES IN FIRE:
In the event of fire protect against exploding cans. Water spray may be used to cool aerosol cans.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEANUP METHODS: This product is a hermetically sealed pressurised aerosol unit and accidental spillage is unlikely. If can is ruptured, allow contents to discharge in situ, whilst removing all ignition sources from the area and ensuring maximum ventilation. Use an absorbent material, eg sand, to mop up residues. See section 13 'Disposal Considerations'.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS: Do not spray on a naked flame or any incandescent material.

STORAGE PRECAUTIONS: Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. It is recommended that aerosols are stored in their own location away from bulk flammable liquids and packaging materials. Store in a cool, dry place away from heat and ignition sources.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENT NAME	CAS No	STD	LT EXP (8 hrs)	ST EXP (15 min)
ODOURLESS KEROSENE	64742-47-8	OES.	1000 mg/m3	
ALIPHATIC HYDROCARBON	64742-30-9	OES.	5 mg/m3	10 mg/m3
CARBON DIOXIDE	124-38-9	OES.	5000 ppm	15000 ppm

INGREDIENT COMMENTS: OES = Occupational Exposure Standard.

PROCESS CONTROL MEASURES:
Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and on the potential for exposure. Use of the basic principles of Industrial Hygiene will enable this material to be used safely.

VENTILATION: No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.

HYGIENIC WORK ROUTINES: PERSONAL PROTECTION: Wear personal protective equipment appropriate to the task.

9 PHYSICAL AND CHEMICAL PROPERTIES

LPS 1 GREASELESS LUBRICANT (AEROSOL SPRAY CAN)

APPEARANCE:	Liquid.	**COLOUR:**	Pale Amber.
ODOUR/TASTE:	Characteristic.		
SOLUBILITY DESCRIPTION:	Insoluble in water.		
BOILING POINT (°C):	195 @ 760mmHg		
SPECIFIC GRAVITY (Water=1):	0.8 @ 20 °C	**VAPOUR DENSITY (air=1):**	>1
VAPOUR PRESSURE:	<1mmHg @ 20 °C	**EVAPORATION RATE:**	<0.1(BuAc=1)
FLASH POINT (°C):	70		
FLASH POINT METHOD:	PM Closed cup.		
AUTO IGNITION TEMPERATURE (°C):	>200		

10 STABILITY AND REACTIVITY

STABILITY: There are no known stability problems associated with this product when stored and used under the conditions recommended.

CONDITIONS TO AVOID: Exposure to direct sunlight. Temperatures in excess of 50°C.

MATERIALS TO AVOID: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

Combustion will generate: smoke, possibly thick and choking, resulting in zero visibility. Combustion may also generate: oxides of sulphur.

11 TOXICOLOGICAL INFORMATION

HEALTH HAZARDS, GENERAL:

An acute toxicity study of this product has not been conducted. Information given in this section relates only to individual constituents contained in this product. Health hazards associated with aerosols are considered to be limited due to their hermetically sealed nature.

INHALATION: High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

INGESTION: Harmful: small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause lung damage.

SKIN: May cause defatting of the skin, but is not classified as an irritant.

EYES: May cause slight transient irritation.

12 ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: An ecotoxicity study of this product has not been conducted. However, this product contains no substances which are classified as dangerous for the environment.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: Recycle empty containers if facilities are available. Dispose of in accordance with local authority recommendations.

LPS 1 GREASELESS LUBRICANT (AEROSOL SPRAY CAN)

14 TRANSPORT INFORMATION

ROAD:
UN No: 1950
HAZARD CLASS (ADR): Class 2: Gases; Compressed, liquefied or dissolved under pressure.
ADR CLASS No: 5A
PROPER SHIPPING NAME I: AEROSOLS

RAIL:
SEA:
UN SEA: 1950
SEA TRANSPORT CLASS No: 2.2

AIR:
UN AIR: 1950
AIR TRANSPORT CLASS No: 2.1

15 REGULATORY INFORMATION

LABEL FOR SUPPLY:

EXTREMELY FLAMMABLE

RISK PHRASES:	R-12	Extremely flammable.
SAFETY PHRASES:	S-16	Keep away from sources of ignition - No Smoking.
	S-2	Keep out of reach of children.
	S-51	Use only in well ventilated areas.

UK REGULATORY REFERENCES:
Chemicals (Hazard Information & Packaging) Regulations.

16 OTHER INFORMATION

USER NOTES: The purpose of the above information is to describe this product only in terms of Health and Safety requirements. The information given therefore, should not be construed as guaranteeing specific properties or specification. Customers should satisfy themselves as to the suitability and completeness of this information for their own particular use, bearing in mind any other Health and Safety legislation or regulations. The information and recommendations in this publication are to the best of our knowledge reliable. However, nothing herein is construed as a warranty or representation. Statements concerning the use of the products described herein are not to be construed as recommending the infringement of any patent and no liability for infringement arising out of any such use is to be assumed.

LPS 1 GREASELESS LUBRICANT (AEROSOL SPRAY CAN)

INFORMATION SOURCES:	British Aerosol Manufacturers Association Code of Practice. HSE EH40 Occupational Exposure Limits. Suppliers health & safety data sheets.	
REVISION DATE:	23.01.03	
REVISION No. /REPLACES SDS ISSUED:		
	1	
R-PHRASES (Full Text):	R-10	Flammable. Not classified.
	R-65	Harmful: may cause lung damage if swallowed.
DATE:	17.10.00	

TYCO CPVC
TFP-600 One Step Solvent Cement
SDS (Safety Data Sheet)

IMPORTANT
Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Scan the QR code or enter the URL in a web browser to access the most up-to-date electronic version of this document. Data rates may apply.

docs.jci.com/tycofire/tfp1994

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

SAFETY DATA SHEET

1. Identification

Product identifier	**TFP-600 Blazemaster CPVC Cement**
Other means of identification	None.
Recommended use	Joining CPVC Pipes
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company Name	Oatey Co.
Address	4700 West 160th St. Cleveland, OH 44135
Telephone	216-267-7100
E-mail	info@oatey.com
Transport emergency	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
Emergency first aid	1-877-740-5015
Contact person	MSDS Coordinator
Supplier	
Company name	Tyco Fire Protection Products
Address	1400 Pennbrook Parkway Lansdale, PA 19446
Telephone	215-362-0700
E-mail	PSRA@tycofp.com
Transport emergency	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
Emergency first aid	1-877-740-5015
Contact person	Product Stewardship

Section 1 excerpted from: Oatey 935557 SDS US

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

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

Hazard(s) not otherwise classified (HNOC) Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	30-60
Methyl ethyl ketone	78-93-3	10-30
Ethene, chloro-, homopolymer, chlorinated	68648-82-8	10-20
Acetone	67-64-1	5-15
Cyclohexanone	108-94-1	5-15
Silica, amorphous, fumed	112945-52-5	1-5

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain. Irritation of nose and throat.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3
		1000 ppm
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3
		50 ppm
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3
		200 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm
	TWA	20 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm
	TWA	50 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m3
		250 ppm
	TWA	590 mg/m3
		200 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
	TWA	590 mg/m3
		200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3

Sections 7 and 8 excerpted from: Oatey 935557 SDS US

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.
Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Translucent liquid.
Color	Red.
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	151 °F (66.11 °C)
Flash point	14.0 - 23.0 °F (-10.0 - -5.0 °C)
Evaporation rate	5.5 - 8
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.8
Flammability limit - upper (%)	11.8
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg @ 20 C
Vapor density	2.5
Relative density	0.94 +/- 0.02
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	1500 - 3500 cP
Other information	
Bulk density	8.1 lb/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC	470 g/l SQACMD Method 304

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	> 20 ml/kg
Inhalation		
LC50	Rat	50 mg/l, 8 Hours
Oral		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
Dermal		
LD50	Rabbit	948 mg/kg
Inhalation		
LC50	Rat	8000 ppm, 4 hours
Oral		
LD50	Rat	800 mg/kg

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Section 11 excerpted from: Oatey 935557 SDS US

12. Ecological information

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

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	481 - 578 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

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

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

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

14. Transport information

DOT

UN number UN1993
UN proper shipping name Flammable liquids, n.o.s. (Methyl ethyl ketone RQ = 43706 LBS, Acetone RQ = 58005 LBS)
Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3
Packing group II
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions IB2, T7, TP1, TP8, TP28
Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1993
UN proper shipping name Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards No.
ERG Code 3H
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone, Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV
Methyl ethyl ketone (CAS 78-93-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Silica, amorphous, fumed (CAS 112945-52-5)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Silica, amorphous, fumed (CAS 112945-52-5)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

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

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

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

Issue date 26-October-2016

Revision date -

Version # 01

HMIS® ratings
Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings

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

Sections 15 and 16 excerpted from: Oatey 935557 SDS US

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