

LSPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: August 7, 2018

00071MB, 00071-XQ FOMBLIN® Y HVAC Grade 18/8
Perfluorinated Polyether Diffusion Pump Fluid

00072-MB, 00072-XQ FOMBLIN® Y HVAC Grade 25/9
Perfluorinated Polyether Diffusion Pump Fluid

Section 1.1: Identification

Product or Trade Name Fomblin Y LVAC: 18/8, 25/9 Perfluorinated Polyether Diffusion Pump Fluid

CAS #'s 69991-67-9

Chemical Formula..... 1-Propene, 1,1,2,3,3,3-hexafluoro-,oxidized,polymerized

Section 1.2: Relevant Uses/Restrictions

Application: Vacuum pump lubricant.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

Physical hazards: Not Classified.

Health hazards: Not classified.

Environmental hazards: No classified.

2.2 Label elements: Not classified.

Hazard statements: Not classified.

2.3 Other Hazards:

This product does not contain any substances classified as PBT or vPvB.

Hazardous Material Information System USA

Health 0
Fire Hazard 1
Reactivity 0
Personal Protection

NFPA Rating (estimated)

Health 0
Flammability..... 1
Reactivity 0

Section 3: Composition

3.1 Substances:

1-Propene,1,1,2,3,3,3-hexafluoroo-, oxidized, polymerized CAS # 69991-67-9

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.

Section 4: First Aid Measures

4.1 Description of first aid measures:

General Information:

If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Inhalation:

No specific recommendations. If throat irritation or coughing persists, proceed as follows: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie, or belt. Get medical attention if discomfort continues.

Skin Contact:

No specific recommendations. Rinse with water. Get medical attention if any discomfort continues.

Eye Contact:

Rinse with water. Get medical attention if any discomfort continues.

Ingestion:

No specific recommendations. If throat irritation or coughing persists, proceed as follows: Rinse mouth, Get medical attention if any discomfort continues.

Self-protection of the first aider: No recommendations.

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

General information: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: No specific symptoms known. Spray/mists may cause respiratory tract irritation.

Ingestion: No specific symptoms known. May cause discomfort if swallowed.

Skin contact: No specific symptoms known. May cause discomfort.

Eye contact: No specific symptoms known. May be slightly irritating to eyes.

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

Notes for the doctor: Treat symptomatically.

Specific treatments: No special treatment required.

Section 5: Fire Fighting Measures

5.1 Extinguishing media:

Suitable extinguishing media: The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture:

Specific hazards: Containers can burst violently or explode when heated, due to excessive pressure build-up.

5.3 Hazardous combustion products: Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapors. Hydrogen fluoride (HF).

5.4 Advice for firefighters:

Protective actions during firefighting: Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak.

Special protective equipment and precautions for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing, including helmets, protective boots, and gloves will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

6.1 Personal precautions: No specific recommendations. For personal protection, see Section 8.

6.2 Environmental precautions: Avoid discharge into drains or watercourses or onto the ground.

6.3 Methods and material for containment and cleaning up: Reuse or recycle products wherever possible. Absorb spillage to prevent material damage. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

6.4 Reference to other sections: For personal protection, see Section 8.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Protective measures:

Read and follow manufacturer's recommendations.
Wear protective clothing as described in Section 8 of this Safety Data Sheet.
Keep away from food, drink, and animal feeding stuffs.
Handle all packages and containers carefully to minimize spills.
Keep container tightly sealed when not in use.
Avoid formation of mists.

Advice on general hygiene conditions:

Wash promptly if skin becomes contaminated.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities:

Store at ambient room temperatures in tightly closed containers.
Unspecified storage class.

7.3 Specific end uses:

Application: Vacuum pump lubricant.

This material is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection:

Workplace exposure limits: Contains no substances with occupational exposure limit values.

Biological limit values: No data available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: No specific ventilation requirements.

8.2.2 Individual protection measures:

Eye/face protection: No specific eye protection required during normal use.

Large spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

Hand protection: No specific hand protection recommended.

Large spillages: Wear protective gloves.

Hygiene measures: Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking, or using the toilet. Do not eat, drink, or smoke when using this product.

Respiratory protection: No specific recommendations. Provide adequate ventilation.

Large spillages: If ventilation is inadequate, suitable respiratory protection must

be worn.

8.2.3 Environmental exposure controls: Not regarded as dangerous for the environment.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance: Colorless liquid

Odor: Odorless

Odor threshold: Not applicable

pH: Not applicable

Melting point/Freezing point: Not available

Boiling point/Boiling point range: 270 °C @ 760 mm Hg

Flash Point: Not applicable

Evaporation rate: Not available

Flammability (solid, gas): Not applicable

Upper/lower flammability or explosive limits: Not applicable

Vapor Pressure: 5×10^{-13} mm Hg @ 20°C

Vapor density: Not available

Relative density: ~1.90

Solubility: Insoluble in water

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

Auto-ignition temperature: Not applicable

Decomposition temperature: Not available

Viscosity: 180-1400 cSt @ 20 °C

Explosive properties: Not considered to be explosive

Oxidizing Properties: No information available

Molecular weight: Not available

9.2 Other information: No further relevant information available

Section 10: Stability and Reactivity

10.1 Reactivity: There are no known reactivity hazards associated with this product.

10.2 Chemical Stability: Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3 Possibility of Hazardous Reactions: No potentially hazardous reactions known.

10.4 Conditions to avoid: There are no known conditions that are likely to result in a hazardous situation.

10.5 Incompatible materials: Powdered metals.

10.6 Hazardous decomposition products: Does not decompose when used and stored as recommended.

Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. Hydrogen fluoride (HF).

Section 11: Toxicological Information

Information on the likely routes of exposure:

General information: No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: No specific symptoms known. Spray/mists may cause respiratory tract irritation.

Ingestion: No specific symptoms known. May cause discomfort if swallowed.

Skin Contact: No specific symptoms known. May cause discomfort.

Eye Contact: No specific symptoms known. May be slightly irritating to eyes.

Routes of Entry: Ingestion; Inhalation; Skin and/or Eye contact.

Target Organs: No specific target organs known.

11.1 Information on toxicological effects: Not regarded as a health hazard under current legislation.

- A. Acute toxicity:** Based on available data the classification criteria are not met.
- B. Skin corrosion/irritation:** Based on available data the classification criteria are not met.
- C. Serious eye damage/irritation:** Based on available data the classification criteria are not met.
- D. Respiratory of skin sensitization:** Based on the available date the classification criteria are not met.
- E. Germ cell mutagenicity:** Based on the available data the classification criteria are not met.
- F. Carcinogenicity**
 - IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
 - ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
 - NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
 - OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- G. Reproductive toxicity:** Based on available data the classification criteria are not met.
- H. STOT-single exposure:** Not classified as a specific target organ toxicant after a single exposure.
- I. STOT-repeated exposure:** Not classified as a specific target organ toxicant after repeated exposure.
- J. Aspiration hazard:** Based on available data the classification criteria are not met.

Section 12: Ecological Information

12.1 Toxicity: Based on available data the classification criteria are not met.

Ecotoxicity: Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.2 Persistence and degradability: The degradability of the product is not known.

12.3 Bio-accumulative potential: No data available on bio-accumulation.

12.4 Mobility in soil: No data available.

12.5 Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/ not conducted.

12.6 Other adverse effects: None known.

Section 13: Disposal Considerations

13.1 Waste treatment methods:

General information: The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way.

Disposal methods: Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

Section 14: Transport Information

DOT (US): Not dangerous goods.
IATA: Not dangerous goods.
IMDG: Not dangerous goods.

Section 15: Regulatory Information

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

U.S. Government Regulations:

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA): None of the ingredients are listed or exempt.

SARA 311/312 Hazards: No SARA Hazards.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities: None of the ingredients are listed or exempt.

CAA Accidental Release Prevention: None of the ingredients are listed or exempt.

FDA – Essential Chemical: None of the ingredients are listed or exempt.

FDA – Precursor Chemical: None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals: None of the ingredients are listed or exempt.

US State Regulations:

California Prop. 65 Carcinogens and Reproductive Toxins: None of the ingredients are listed or exempt.

California Air Toxics “Hot Spots” (A-I): None of the ingredients are listed or exempt.

California Air Toxics “Hot Spots” (A-II): None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances: None of the ingredients are listed or exempt.

Massachusetts Right to Know Components:

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components:

1-Propene, 1,1,2,3,3,3-hexafluoro-, oxidized, polymerized CAS # 69991-67-9

New Jersey Right to Know Components:

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Rhode Island Right to Know Components:

No components are subject to the Rhode Island Right to Know Act.

Minnesota Right to Know Components:

No components are subject to the Minnesota Right To Know Act.

International Inventories:

All of the ingredients are listed or exempt for:

- US-TSCA
- US-TSCA 12(b) Export Notification
- Australia – AICS
- Japan – MITI
- Korea – KECI
- China – IECSC
- Philippines – PICCS
- New Zealand - NZIOC

15.2 Chemical Safety Assessment: Has not been carried out.

Date of Preparation: 07 August 2018

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
CMRG: Chemical Manufacturer’s Recommended Guidelines
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
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)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulative and Toxicological
vPvB: very Persistent and very Bio-accumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
ATE: Acute Toxicity Estimates
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
STEL: Short Term Exposure Limit
CEIL: Ceiling
TSCA: Toxic Substances Control Act (USA)
DSL: Domestic Substances List (Canada)
PICCS: Philippine Inventory of Chemicals and Chemical Substances
ENCS: Existing and New Chemical Substances (Japan)
AICS: Australian Inventory of Chemical Substances
IECSC: Inventory of Existing Chemical Substances in China
KECL: Korea Existing Chemicals List

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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