

SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Material Safety Data Sheet

Date Effective: November 4, 2011

SPI #00014-AB Fomblin® ZNF High Vacuum Grease

Section 1: Identification

Chemical Name/Synonyms.....Mixture of Propene, 1,1,2,3,3,3-hexafluoro, oxidized, polymerized and polytetrafluoroethylene

Chemical family.....Fluorocarbons, fluoropolymers

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

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

Product or Trade Name.....SPI #00014-AB Fomblin® ZNF High Vacuum Grease

CAS #'s.....**69991-67-9,9002-84-0**

Hazardous Material Information System USA

Health.....1

Fire Hazard.....0

Reactivity.....0

Personal Protection.....0

NFPA Rating (estimated)

Health.....1

Flammability.....0

Reactivity.....0

Section 2: Composition

Component Name	CAS #	Percent	EINECS/ELINCS
Propene, 1,1,2,3,3,3-hexa-fluoro, oxidized, polymerized	69991-67-9	Proprietary	
Polytetrafluoroethylene	9002-84-0	Proprietary	

Section 3: Hazard Identification

Emergency overview: White grease. Thermal decomposition will generate hydrogen fluoride (HF), which is corrosive.

Appearance: White grease

Flash Point: N/A

Warning!

Thermal decomposition will generate hydrogen fluoride (HF), which is corrosive.

Potential Health Effects

Eye: Eye contact may cause slight irritation.

Skin: Skin contact may cause slight irritation.

Ingestion: Not an expected exposure route. Ingestion may cause nausea and vomiting.

Inhalation: Inhalation of vapors or mists may cause irritation of the mucous membranes and respiratory tract.

Section 4: First Aid Measures

Eyes: Flush eyes with copious amounts of water for at least 15 minutes, holding eyelids open. Seek medical attention if irritation persists.

Skin: Wash skin thoroughly with mild soap and water. Flush with lukewarm water for at least 15 minutes.

Ingestion: If conscious, drink 3 to 4 eight oz glasses of water or milk. Seek medical attention. If unconscious, take person to hospital. Do not give anything by mouth to an unconscious person.

Inhalation: If symptoms of irritation or discomfort are experienced, remove to fresh air. Give oxygen if breathing is difficult or artificial respiration if person is not breathing.

Section 5: Fire Fighting Measures

General Information:

Flash Point: N/A

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Autoignition Temperature: N/A

Extinguishing Media:

Water (spray or fog), foam, dry chemical or carbon dioxide

Fire Fighting Procedures:

Use self-contained breathing apparatus (SCBA) and skin protection for acid gas exposure. Do not enter fire area without proper protection. Fight fire from safe distance. If possible, air monitoring should be performed.

Unusual Fire Hazards:

Will thermally decompose upon prolonged heating or in a fire, liberating hydrogen fluoride (HF) and carbonyl fluoride(COF₂). This gas is toxic if inhaled or in contact with moist skin.

HF has an ACGIH PEL TLV (8hr TWA) of 0.5 ppm and a ceiling limit of 2 ppm (1.7 mg/m³).

COF₂ has an ACGIH TLV of 2 ppm (5.4 mg/m³) and an OSHA PEL TWA of 2 ppm(5 mg/m³).

Section 6: Accidental Release Measures

General Information:

In case of a release or spill, absorb material onto vermiculite or similar inert absorbent. Place spilled material into covered container for disposal. Extinguish all ignition sources and evacuate the area. Exercise caution, spill area may be slippery.

Recommended Disposal:

Dispose according to applicable local, state/provincial and federal regulations.

Section 7: Handling and Storage

Handling:

Wash hands after use and before handling food or applying cosmetics.
Do not use tobacco products in the immediate area.

Storage:

Keep containers closed. Keep away from heat, sparks and flames.
Do not store near combustible materials.

Section 8: Exposure Controls and Personal Protection

Engineering Controls:

Local exhaust ventilation at a rate of 50 feet per minute. Vent vapors or mists generated by processing away from operating personnel.

Exposure Limits:

Chemical Name	ACGIH	OSHA - Final PELs
Fomblin ZNF Grease	none established	none established

Personal Protective Equipment

Eyes: ANSI Z87.1 approved safety glasses with side shields or equivalent.

Skin: Rubber or latex gloves recommended but not necessary.

Respirators: Respiratory Protection: No occupational standards have been developed for this material. In situations where exposure to vapors or mists is likely, NIOSH/MSHA approved respirators are recommended. Respirator use limitation made by NIOSH/MSHA or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

Section 9: Physical and Chemical Properties

Appearance: white grease

Odor: odorless

pH: n/a

Vapor Pressure: n/a

Vapor Density: n/a

Evaporation Rate: n/a

Viscosity: n/a

Boiling Point: n/a

Freezing/Melting Point: n/a

Autoignition Temperature: n/a

Flash Point: n/a

Decomposition Temperature: n/a

Explosion Limits

Lower: n/a

Upper: n/a

Solubility in water: insoluble

Specific Gravity/Density: 1.7-1.9

Section 10: Stability and Reactivity

Chemical Stability: This material is stable.

Conditions to Avoid: Heat, sparks, flames, ignition sources. Avoid heating above 290°C (554°F).

Incompatibility with Other Materials: Alkali metals, halogenated compounds, strong or non-aqueous alkali or Lewis acids above 100°C (212°F).

Hazardous Decomposition of Products: Thermal decomposition of this product will generate hydrogen fluoride (HF) which is corrosive, causing burns on contact with skin and other tissue.

Reactivity: This material is not reactive.

Section 11: Toxicological Information

Data listed are for propene, 1,1,2,3,3,3-hexafluoro, oxidized, polymerized:

Rat oral LD50:>25.65 g/kg

Rat intraperitoneal LD50: ?25 g/kg

Rat dermal LD50: >2 g/kg

Rabbit skin irritation: not irritating

Rabbit eye irritation: not irritating

Guinea pig sensitization: not a sensitizer

Section 12: Ecological Information

No ecological information is available for this material

Section 13: Disposal Considerations

Material, as supplied, is not a hazardous waste. Landfill according to current federal, state and local regulations, or incinerate in a high-temperature incinerator designed to burn fluorine-containing materials. Processing, use or contamination may make this information inaccurate or incomplete.

Section 14: Transport Information

US DOT Hazard Class: Not regulated by DOT.

Section 15: Regulatory Information

United States:

RTECS:

CAS# 9002-84-0: KX4025000

CAS# 69991-67-9: N/A

TSCA

All components of this product are listed on the Toxic Substances Control Act (TSCA) Section 8(b).

SARA 302: Not listed

SARA Codes:

Acute: No

Chronic: No

Fire: No

Reactivity: No

Sudden Release of Pressure: No

Section 313: Not listed on Section 313 Toxic Chemicals list.

OSHA:

This product is not a "hazardous substance" as defined by the OSHA Hazard Communication Standard (29CFR 1910.1200).

State (Individual states in the USA)

Polytetrafluoroethylene is listed on the Pennsylvania Hazardous Substances List.

Canada:

All components of this product are listed on the Canadian Environmental Protection Act (CEPA) provisional domestic substances list (DSL).

This product is not a "controlled product" as defined by the Canadian Workplace Hazardous Materials Information System (WHMIS).

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 or fluids.

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