SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Material Safety Data Sheet

Date Effective: December 8, 2011

SPI # 00015-AB, 00015A-AB; Fomblin® RT-15 High Vacuum Grease

Section 1: Identification

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

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...... 00015-AB, 00015A-AB

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

Synonyms.....Fluoropolymers, fluorocarbon

Hazardous Material Information System USA

NFPA Rating (estimated)

Section 2: Composition

Component Name CAS # Percent

Propene, 1,1,2,3,3,3-hexafluoro, oxidized, polymerized 69991-67-9 Proprietary Polytetrafluoroethylene 9002-84-0 Proprietary

Section 3: Hazard Identification

Emergency overview: Routes of entry include eye contact, skin contact, and inhalation.

Appearance: White grease.

Flash Point: N/A

Warning!

Target Organs: Eyes, skin, mucous membranes, respiratory tract.

Potential Health Effects

Eye: Contact may cause slight irritation. **Skin:** Contact may cause slight irritation. **Ingestion:** May cause nausea or vomiting.

Inhalation: May irritate mucous membranes or respiratory tract.

Chronic: Analogous to acute hazards.

Section 4: First Aid Measures

Eyes: Immediately flush with running water for at least 15 minutes while holding eyes open. Check for and remove contact lenses. Seek medical attention.

Skin: Flush with lukewarm water for at least 15 minutes. Remove contaminated clothing and launder before reuse. If irritation persists, seek medical attention.

Ingestion: Upon ingestion, dilute with 2-4 glasses of water or milk. Do not induce vomiting and seek medical attention immediately.

Inhalation: Remove victim to fresh air. If victim is not breathing, administer oxygen. If irritation persists, seek medical attention.

Section 5: Fire Fighting Measures

General Information: Always wear full protective equipment including self containing breathing apparatus.

Auto Ignition Temperature: N/A

Flash Point: None.

Hazardous Combustion Products: Hydrogen fluoride. Carbonyl fluoride.

Unusual Fire/Explosion Hazards: Hydrogen fluoride and carbonyl fluoride are toxic when in contact with skin or inhaled. Hydrogen fluoride has an ACGIH TLV value of 0.5 ppm. Carbonyl fluoride has an ACGIH TLV of 2 ppm and an OSHA TWA of 2 ppm.

Extinguishing Media: Water, dry chemical, carbon dioxide, foam.

Protective Measures: Skin protection for acid gas exposure.

Section 6: Accidental Release Measures

Spills/Leaks: Wear appropriate protective equipment. Contain the spill. Non-essential personnel should be evacuated. Eliminate all sources of ignition and keep area well ventilated. Soak up spill with vermiculate or other inert absorbent materials. Place in appropriate disposal container.

Disposal Procedure: According to local, state, and federal regulations.

Section 7: Handling and Storage

Handling: Always wear protective equipment appropriate to the task. Avoid contact with skin, eyes, and clothing. Always use adequate ventilation and avoid breathing vapors. Launder contaminated clothing before reuse. Avoid flames and other sources of ignition. Wash thoroughly after use.

Storage: Store closed containers away from combustible materials, flames, or other sources if ignition. Keep out of the reach of children.

Section 8: Exposure Controls and Personal Protection

Engineering Controls: If exposure limit is exceeded, use a NIOSH approved respirator. Local exhaust should be available at points of emission (50 ft/min). Safety shower and eye wash stations should be readily accessible in work area.

Exposure Limits: Not available for product. See below for data on hazardous decomposition products.

Chemical NameACGIHOSHAHydrogen Fluoride0.5 ppm (8 hr. TWA)N/ACarbonyl Fluoride2 ppm2 ppm

Personal Protective Equipment

Eyes: Chemical safety goggles or glasses with side shields are required.

Skin: As necessary to prevent contact with skin.

Clothing: Protective clothing such as long sleeves or a lab coat should be worn. Neoprene or neoprene gloves with cuffs are recommended. When handling heated materials, also be sure to use heat-resistant gloves, boots and face protection.

Respirators: If exposure limit is reached or exceeded, or ventilation is inadequate, a NIOSH approved respirator with acid gas cartridges should be used.

Section 9: Physical and Chemical Properties

Physical State: Grease. 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: None.

Explosion Limits

Lower: N/A Upper: N/A Solubility in water: Insoluble.

Specific Gravity/Density: 1.7-1.9 (water = 1).

Molecular Formula: N/A
Molecular Weight: N/A

Decomposition Temperature: N/A

Section 10: Stability and Reactivity

Chemical Stability: This product is stable under normal working conditions.

Conditions to Avoid: Flames and other sources of ignition. Avoid temperatures above 290° C (554° F).

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

Hazardous Decomposition of Products: Heating or burning this product will release hydrogen fluoride, a corrosive acid gas that will cause burns on contact with skin and other tissue.

Section 11: Toxicological Information

Chemical Name LD50

Propene, 1,1,2,3,3,3-hexafluoro,>25.65 g/kg (rat, oral)

oxidized, polymerized >25 g/kg (rat, intraperitoneal)

>2 g/kg (rat, dermal)

Teratogenicity: N/A
Reproductive Effects: N/A
Neurotoxicity: N/A
Mutagenicity: N/A

Section 12: Ecological Information

No ecological information is available at this time.

Section 13: Disposal Considerations

Waste Disposal: In accordance with local and federal regulations. This product may be incinerated in a high-temperature incinerator designed to burn fluorinated compounds.

Section 14: Transport Information

US DOT Hazard Class: Not regulated.

IATA (for international shipments): Not regulated.

Section 15: Regulatory Information

United States

TSCA: All ingredients in this product are listed on the TSCA inventory. **SARA Section 302; Extremely Hazardous Substances:** Not listed.

SARA Hazard Categories Sections 311/312:

Immediate (Acute) Health Hazard: No. Delayed (Chronic) Health Hazard: No.

Fire Hazard: No.

Sudden Release of Pressure: No.

Reactive: No.

SARA Section 313: None.

State (Individual states in the USA)

Pennsylvania Hazardous Substances List: Polytetrafluoroethylene

European/International Regulations

Safety Phrases:

S2 Keep out of the reach of children. S16 Keep away from sources of ignition - No smoking. S24/25 Avoid contact with skin and eyes.

Canada

WHMIS: This product is not a "controlled product" as defined by WHMIS.

DSL Status: All components of this product appear on the DSL.

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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