

Fomblin Z-DOL 4000

SOLVAY SOLEXIS, Inc.
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Section 1 - Chemical product and Company information

Date Revised: February 5, 2004
Product Name: Fomblin Z-DOL 4000
Chemical Name: Dihydroxy derivative of perfluoropolyoxyalkane
Chemical Family: Perfluoropolyoxyalkane
Emergency Telephone: 800-424-9300 (CHEMTREC, 24 hours)
856-853-8119

Emergency Overview:

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

Section 2 - Compositional information

Name:	CAS#	Approximate Weight (% wt.):
Derivative of perfluoropoly-oxyalkane	88645-29-8	100

Section 3 - Potential Health Effects

Effects of Overexposure:

Eye Contact

Eye contact may cause slight irritation.

Skin Contact

Skin contact may cause slight irritation.

Inhalation

Inhalation of vapors or mists may cause respiratory tract irritation.

Ingestion

No ill effects are expected.

Section 4 - First Aid Measures

Eye Contact:

Flush eyes for 15 minutes with copious amounts of water, retracting eyelids often. Seek medical attention if irritation persists.

Skin Contact:

Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes.

Inhalation:

If symptoms of irritation, discomfort or overcome by exposure, remove affected person to fresh air. Give oxygen or artificial respiration as needed.

Ingestion:

If conscious, drink three to four 8 ounce glasses of water or milk. Call a physician. If unconscious, immediately take affected person to a hospital. Do not give anything by mouth to an unconscious person.

Section 5 - Fire Fighting Measures

Flash Point: Not Applicable

Lower Explosive Limit: Not Applicable

Upper Explosive Limit: Not Applicable

Autoignition Temperature: Not Applicable

Extinguishing Media: Water (spray or fog), foam, dry chemical or carbon dioxide (CO₂).

Unusual Fire Hazards:

Fluorocarbons will degrade upon prolonged heating or in a fire, liberating carbonyl fluoride and hydrogen fluoride (HF). This gas is toxic if inhaled or it comes into contact with moist skin. HF has an ACGIH TLV ceiling limit of 3 ppm (2.6 mg/m³) and an OSHA PEL TWA of 3 ppm. Carbonyl fluoride has an ACGIH TLV TWA and OSHA PEL TWA of 2 ppm (5 mg/m³).

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.

Section 6 - Accidental Release Measures

Releases:

In case of a release or spill, absorb material onto vermiculite or similar inert absorbent. Use Perfluorosolv0 PFS1 Solvent to clean any remaining liquid. Place spilled material into covered container for disposal. Dispose of according to applicable local, state and federal regulations. Extinguish all ignition sources and evacuate the area. Exercise caution; spill area may be slippery.

Section 7 - Handling and Storage

Wash hands after use and before handling food or applying cosmetics. Do not use tobacco products in the immediate area. Keep containers closed. Keep away from heat, sparks and flames. Do not store near combustible materials.

Section 8 - Exposure Controls/Personal Protection

ACGIH Threshold Limit Value (8hr. time weighted average)

None established

OSHA Permissible Exposure Limit Value (8hr. time weighted average)

None established

Engineering Controls:

Ventilation Requirements:

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

Personal Protective Equipment:

Respiratory Protection:

No occupational exposure 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 limitations made by NIOSH/MSHA or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

Eye Protection:

Eye/Face Protection: ANSI Z87.1 approved safety glasses with side shields or equivalent.

Skin Protection:

Rubber or latex gloves recommended but not necessary.

Section 9 - Physical and Chemical Properties

Appearance: Liquid

Color: Colorless

Odor: Odorless

Vapor Pressure: 10-6 torr @ 20 C/68 F

Vapor Density (Air=1): Not available

Boiling Point: Not available

Melting Point: Not available

Specific Gravity: 1.8

Solubility in Water: Insoluble

Molecular Formula: X-CF₂-(O-CF₂-CF₂)_n-(O-CF₂)_m-O-CF₂-X, where X= -CH₂OH

Molecular Weight: 3900 - 4100

% Volatile by Volume: 0

Section 10 - Stability and Reactivity

Stability:

This material is stable.

Reactivity:

This material is not reactive.

Conditions to Avoid:

Heat, sparks, flames, and other ignition sources; avoid heating above 250 C/492 F.

Materials to Avoid:

Strong alkalis or non-aqueous Lewis acids above 100 C/212 F.

Hazardous Decomposition Products:

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

Incompatibility (Materials to Avoid):

Alkali metals and halogenated compounds.

Section 11 - Toxicological Information

Data listed are for a compositionally similar material:

Rat oral LD50: greater than 25.65 g/kg
Rat intraperitoneal LD50: greater than 25 g/kg
Rat dermal LD50: greater than 2 g/kg
Rabbit skin irritation: not irritating
Rabbit eye irritation: not irritating
Guinea pig sensitization: not a sensitizer

Section 12 - Ecotoxicological Information

No ecotoxicological information is available for this material.

Section 13 - Disposal Considerations

Waste Disposal: 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 - Transportation information

Shipping Class: Not regulated by DOT.

Section 15 - Regulatory information

All components of this product are listed on the Toxic Substances Control Act (TSCA) Section 8(b) Chemical Inventory. This product is not a "hazardous substance" as defined by OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is not a "controlled product" as defined by the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA Section 302 Extremely Hazardous Substances:

Not listed

SARA 311/312:

Acute: No

Chronic: No

Fire: No

Reactivity: No

Sudden Release of Pressure: No

SARA Section 313 Toxic Chemicals:

Not listed

Section 16 - Additional Information

NFPA Ratings (Scale of 0-4):

Health=1

Fire=0

Reactivity=0

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