

## Material Safety Data Sheet

### **Tec-Lube® PFPE Oils**

Version 2.1

Revision Date 01/22/2010 Ref. 150000000934

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This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

#### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Tec-Lube® PFPE Oils

Product Grade/Type : TL001; TL120

MSDS Number : 150000000934

Product Use : Lubricant

Manufacturer : Torrllube

133 East De La Guerra

#134 Santa Barbara, CA 93101

Product Information : 218-260-2116

Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)

Transport Emergency : CHEMTREC: 1-800-424-9300 (outside the U.S. 1-703-527-3887)

Other information : professional use

#### **SECTION 2. HAZARDS IDENTIFICATION**

Emergency Overview

The product as such is not hazardous. Inhalation of decomposition products from overheating may cause lung

irritation or shortness of breath.

Potential Health Effects

Eyes

Perfluoropolyether

: May irritate eyes.

Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by

IARC, NTP, or OSHA, as a carcinogen.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component CAS-No. Concentration

Perfluoropolyether 100 %

#### **SECTION 4. FIRST AID MEASURES**

Skin contact : Wash with water and soap as a precaution.

Eye contact : Rinse with plenty of water. If eye irritation persists, consult a specialist.

Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.

Ingestion : Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center.

#### **SECTION 5. FIRE-FIGHTING MEASURES**

Flammable Properties

Flash point : Method : Pensky-Martens closed cup - PMCC

does not flash

Thermal decomposition : ca. 350 °C (662 °F)

Fire and Explosion Hazard : In fire conditions, toxic decomposition products may be formed.

Suitable extinguishing media : The product itself does not burn.

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

Firefighting Instructions : Wear self-contained breathing apparatus and protective suit. Standard

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procedure for chemical fires.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with

clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel) : Refer to protective measures listed in sections 7 and 8.

Spill Cleanup : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Accidental Release Measures : Do not let product enter drains.

#### **SECTION 7. HANDLING AND STORAGE**

Handling (Personnel) : Avoid breathing vapors from overheated material. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. General industrial hygiene practice.

Storage : No special storage conditions required. Keep container closed to prevent contamination. No decomposition if stored and applied as directed.

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering controls : In the event that the polymer is heated above 350°C (662°F), local ventilation

should be used to avoid exposure to fumes.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required. In the case

of hazardous fumes caused by overheating, wear self-contained breathing apparatus.

Eye protection : Safety glasses

Skin and body protection : No PPE is specified however, avoid contact with skin, eyes, and clothing.

Preventive skin protection

Exposure Guidelines

Exposure Limit Values

None established.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form : viscous, liquid

Color : colourless

Odor : none

pH : neutral

Pour point : -55 - -15 °C (-67 - 5 °F)

Specific Gravity : ca. 1.86 - 1.91 at 24 °C (75 °F)

Water solubility : insoluble

#### **SECTION 10. STABILITY AND REACTIVITY**

Stability : Stable under recommended storage conditions.

Conditions to avoid : Decomposition temperature 350 °C (662 °F)

Hazardous decomposition

products

: Hazardous thermal decomposition products:

Fluorinated compounds

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

Perfluoropolyether

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Dermal ALD : ca. > 17,000 mg/kg, rabbit

Oral LD50 : > 37,400 mg/kg, rat

Inhalation 4 h ALC : ca. > 19.54 mg/l, rat

Skin irritation : Species: human Patch test

non-irritant

Eye irritation : Species: rabbit Draize Test

non-irritant

Skin sensitization : Species: human, Patch test on human volunteers did not demonstrate sensitization properties. Modified Draize Test

Mutagenicity : Did not cause genetic damage in cultured bacterial cells.

Further information : The substance is a polymer and is not expected to produce toxic effects.

#### **SECTION 12. ECOLOGICAL INFORMATION**

Aquatic Toxicity

Perfluoropolyether

96 h LC50

: *Oncorhynchus mykiss* (rainbow trout) > 1,000 mg/l

Aquatic toxicity is unlikely due to low solubility.

48 h static test EC50

: *Daphnia magna* (Water flea) > 1,000 mg/l No information available.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal : In accordance with local and national regulations.

Environmental Hazards : Dispose of container properly.

If recycling is not practicable, dispose of in compliance with local regulations.

#### **SECTION 14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

#### **SECTION 15. REGULATORY INFORMATION**

TSCA Status : On the inventory, or in compliance with the inventory

#### **SECTION 16. OTHER INFORMATION**

MSDS preparation date : 01/22/2010

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Restrictions for use : Do not use Tec-Lube materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Tec-Lube under a written contract that is consistent with Tec-Lube policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Tec-Lube representative. You may also request a copy of the Tec-Lube POLICY Regarding Medical Applications H-50103-3 and Tec-Lube CAUTION Regarding Medical Applications H-50102-3.

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Contact person : MSDS Coordinator, Tec-Lube, Santa Barbara, CA 93101, 218-260-2116. 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. Significant change from previous version is denoted with a double bar.