

**Krytox<sup>®</sup> PFPE Oil with Soluble Additive**

Version 3.4

Revision Date 08/06/2010

Ref. 15000000932

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 : Krytox<sup>®</sup> PFPE Oil with Soluble Additive  
Product Grade/Type : XP-1: A0, A1, A2, A3, A4, A5, A6, A7, A7-500  
VPF: 1506XP, 1514XP, 1525XP, 1531XP  
FG 50, NRT 8805, R9A1, ACW

MSDS Number : 15000000932

Product Use : Lubricant

Manufacturer : DuPont  
1007 Market Street  
Wilmington, DE 19898

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)  
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

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Inhalation of decomposition products from overheating may cause lung irritation or shortness of breath.

## Potential Health Effects

Skin : May cause allergic skin reaction. Itching, Rash, Swelling.

Eyes : May cause eye irritation. Discomfort, tearing, Blurred vision.

## 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.

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

Component	CAS-No.	Concentration
Perfluoropolyether		95 - 100 %
Proprietary Additive		0 - 5 %

**SECTION 4. FIRST AID MEASURES**

- Skin contact : Wash off with soap and plenty of water.
- 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.
- General advice : When symptoms persist or in all cases of doubt seek medical advice.

**SECTION 5. FIRE-FIGHTING MEASURES**

- Flammable Properties
- Flash point : Method : Pensky-Martens closed cup - PMCC  
does not flash
- Thermal decomposition : 350 °C (662 °F)
- Fire and Explosion Hazard : In fire conditions, toxic decomposition products may be formed. (see also section 10)
- Suitable extinguishing media : The product itself does not burn.

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

Firefighting Instructions : Wear self-contained breathing apparatus (SCBA). Wear suitable protective equipment.  
Standard 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.

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

Accidental Release Measures : Prevent material from entering sewers, waterways, or low areas.

**SECTION 7. HANDLING AND STORAGE**

Handling (Personnel) : Avoid breathing vapors from overheated material. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling.  
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.

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Hand protection : Additional protection: Impervious gloves

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 : < -70 - -30 °C (-94 - -22 °F)  
Specific Gravity : ca. 1.9  
Water solubility : insoluble

**SECTION 10. STABILITY AND REACTIVITY**

Stability : Stable under recommended storage conditions.

Conditions to avoid : Temperature > 350 °C (> 662 °F)

Hazardous decomposition products : Hazardous thermal decomposition products:  
Fluorinated compounds

**SECTION 11. TOXICOLOGICAL INFORMATION**

Krytox® PFPE Oil with Soluble Additive  
Further information : No data is available on the product itself.

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

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


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Inhalation 4 h ALC	:	ca. > 19.54 mg/l , rat
Skin irritation	:	slight irritation, rabbit
Eye irritation	:	slight irritation, rabbit
Skin sensitization	:	Patch test on human volunteers did not demonstrate sensitization properties., human
Mutagenicity	:	Did not cause genetic damage in cultured bacterial cells.
Proprietary Additive		
Oral LD50	:	> 5,000 mg/kg , rat
Skin irritation	:	slight irritation, rabbit
Eye irritation	:	Eye irritation, rabbit
Skin sensitization	:	Causes sensitization., guinea pig
Mutagenicity	:	Did not cause genetic damage in cultured bacterial cells.

**SECTION 12. ECOLOGICAL INFORMATION**

Aquatic Toxicity		
Perfluoropolyether		
96 h LC50	:	Oncorhynchus mykiss (rainbow trout) > 1,000 mg/l The substance is a polymer and is not expected to produce toxic effects.
48 h EC50	:	Daphnia magna (Water flea) > 1,000 mg/l
Additional ecological information	:	No data is available on the product itself.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal : In accordance with local and national regulations.



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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**

Restrictions for use : Do not use DuPont 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 DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

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Contact person : MSDS Coordinator, DuPont Chemicals and Fluoroproducts, Wilmington, DE  
19898, (800) 441-7515

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Significant change from previous version is denoted with a double bar.