

## Material Safety Data Sheet

**Krytox® PFPE/PTFE Greases (GPL 20(X) Series)**

Version 2.2

Revision Date 05/07/2010

Ref. 150000001170

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® PFPE/PTFE Greases (GPL 20(X) Series)  
 Product Grade/Type : GPL: 200, 201, 202, 203, 204, 205, 206, 207, 207-500  
 XHT-S, XHT-SX  
 FG: 20, 22, 24, 26  
 NRT: 8900, 8904, 8906, PLSS  
 Sealant: ST-45, ST-63  
 EG-2000, EG-3000  
 LVP, LS-23, AUT 2045, UM 04 PGL, TLC Grease

MSDS Number : 150000001170

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**

The product as such is not hazardous. The thermal decomposition vapours of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. Repeated episodes of polymer fume fever may result in persistent lung effects.

**Potential Health Effects**

Skin : May cause: slight irritation, Redness.

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

**Carcinogenicity**

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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		55 - 85 %
PTFE		15 - 45 %

**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.
- 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

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- Thermal decomposition : 300 °C (572 °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.  
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 : Shovel into suitable container for disposal.
- 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. 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 300°C (572 F) local ventilation should be used to avoid exposure to fumes.

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### 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.

Hand protection : Additional protection: No particular glove type is recommended, but nitrile may used.

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 : grease  
Color : white  
Odor : none  
pH : neutral  
Melting point/range : 320 °C (608 °F)  
Specific Gravity : 1.89 - 1.93 at 24 °C (75 °F)  
Water solubility : insoluble

## SECTION 10. STABILITY AND REACTIVITY

Stability : Stable under recommended storage conditions.

Conditions to avoid : Decomposition temperature 300 °C (572 °F)

Hazardous decomposition products : Hazardous thermal decomposition products: Fluorinated compounds

## SECTION 11. TOXICOLOGICAL INFORMATION

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Oral ALD : > 11,000 mg/kg , rat



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Skin irritation	:	slight irritation, rabbit
Eye irritation	:	slight irritation, rabbit
Sensitisation	:	Animal test did not cause sensitization by skin contact., guinea pig
Perfluoropolyether Further information	:	The substance is a polymer and is not expected to produce toxic effects.
PTFE 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  
The substance is a polymer and is not expected to produce toxic effects.

48 h EC50

: Daphnia magna (Water flea) > 1,000 mg/l

PTFE

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

Environmental Fate

Krytox<sup>®</sup> PFPE/PTFE Greases (GPL 20(X) Series)

Biodegradability : Not readily biodegradable.

Additional ecological information : No data is available on the product itself.

**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.



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**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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