

**Krytox<sup>®</sup> GPL 21(X) Series Greases**

Version 2.2

Revision Date 05/07/2010

Ref. 15000002265

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> GPL 21(X) Series Greases  
Product Grade/Type : GPL: 210, 211, 212, 214, 215, 216, 217  
MSDS Number : 15000002265  
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

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		70 - 75 %
PTFE		20 - 25 %
Molybdenum disulphide	1317-33-5	0 - 5 %

**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
- Thermal decomposition : 300 °C (572 °F)
- Fire and Explosion Hazard : In fire conditions, toxic decomposition products may be formed. (see also section 10)



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- 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.
- 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: 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 : waxy, grease

Color : black

pH : neutral

Melting point/range : 320 °C (608 °F)

Specific Gravity : 1.89 - 1.93 at 24 °C (75 °F)

### 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 LD50 : > 2,000 mg/kg , rat

Skin irritation : slight irritation, animals (unspecified species)

Eye irritation : slight irritation, animals (unspecified species)

Sensitisation : Animal test did not cause sensitization by skin contact., guinea pig

Further information : Information given is based on data on the components and the



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PTFE	toxicology of similar products.
Repeated dose toxicity	: Oral - feed rat No toxicologically significant effects were found.
Molybdenum disulphide	
Repeated dose toxicity	: Inhalation guinea pig Increased respiratory rate
	Oral rat No toxicologically significant effects were found.

### 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.
Molybdenum disulphide	
96 h NOEC	: Oncorhynchus mykiss (rainbow trout) > 750 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.
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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