

**Krytox[®] Sodium Nitrite Inhibited PFPE/PTFE Greases (GPL 22(X) Series)**

Version 3.0

Revision Date 02/05/2013

Ref. 150000001171

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[®] Sodium Nitrite Inhibited PFPE/PTFE Greases (GPL 22(X) Series)
Product Grade/Type : GPL: 220, 221, 222, 223, 224, 225, 226, 227, 227-500
XHT - AC, ACX, NDR 1466
FG: 30, 32, 34, 35, 36
Corrugator: 226 FG, 227 FG
Hi Temp T8-26, T8-27
HTC: 26, 27
AUT 2245
Krytox SLB 266
Krytox MF440

MSDS Number : 150000001171

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 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.

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

Repeated exposure
Sodium nitrite : May cause heritable genetic damage. Adverse effects from repeated ingestion may include: Reduction of blood's oxygen-carrying capacity, which could produce shortness of breath, headache, fatigue, sweating, confusion, abnormal bluish colour of skin or mucous membranes (cyanosis).

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		71 - 80 %
PTFE		18 - 27 %
Sodium nitrite	7632-00-0	2 %

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.

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- 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. FIREFIGHTING MEASURES

Flammable Properties

- Flash point : closed cup
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)
- 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.



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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 260°C (500°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.
 - 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.


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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 260 °C (500 °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
Oral LD50	: > 5,000 mg/kg , rat
Skin irritation	: slight irritation, rabbit
Eye irritation	: slight irritation, rabbit
Sensitisation	: Animal test did not cause sensitization by skin contact., guinea pig

Perfluoropolyether

Inhalation 4 h ALC - Approximate Lethal Concentration	: ca. > 19.54 mg/l , rat
Mutagenicity	: Did not cause genetic damage in cultured bacterial cells.

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


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PTFE		effects.
Further information	:	The substance is a polymer and is not expected to produce toxic effects.
Sodium nitrite		
Inhalation 4 h LC50	:	1.45 mg/l , rat Dust
Mutagenicity	:	Experiments showed mutagenic effects in cultured bacterial cells. Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others. Genetic damage in animals was observed in some laboratory tests but not in others.
Teratogenicity	:	Animal testing showed effects on embryo-foetal development at levels below those causing maternal toxicity.

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.
Sodium nitrite		
96 h LC50	:	Oncorhynchus mykiss (rainbow trout) 0.54 mg/l
72 h ErC50	:	Desmodesmus subspicatus (green algae) > 100 mg/l
72 h NOEC	:	Desmodesmus subspicatus (green algae) 100 mg/l
48 h EC50	:	Daphnia magna (Water flea) 15.4 mg/l



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29 d : NOEC Cyprinus carpio (Carp) 21 mg/l

Environmental Fate

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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.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

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

SARA 313 Regulated Chemical(s) : Sodium nitrite

CERCLA Reportable Quantity : 2,000 lbs
Based on the percentage composition of this chemical in the product.:
Sodium nitrite



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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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