

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 and 453/2010



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

Version 3.1

Revision Date 15.12.2010

Ref.150000001171

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

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

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

Types : 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

Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Lubricant

Details of the supplier of the safety data sheet

Company : Du Pont de Nemours (Nederland) B.V.
Baanhoekweg 22
NL-3313 LA Dordrecht
Netherlands

Telephone : +31-78-630.1011

Telefax : +31-78-630.1181

E-mail address : sds-support@che.dupont.com

Emergency telephone number

Emergency telephone number : +44-(0)8456-006.640

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

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Other hazards

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the mixture : Mixture

Substances

not applicable

Mixtures

Chemical Name	CAS-No.	EC-No.	Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration [%]
Perfluoroalkyl ether						>= 71 - <= 80
Polytetrafluoroethylene	9002-84-0					>= 18 - <= 27
Sodium nitrite	7632-00-0	231-555-9		O;R 8 T;R25 N;R50	Ox. Sol. 3; H272 Acute Tox. 3; H301 Aquatic Acute 1; H400	2

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Description of first aid measures

- General advice : When symptoms persist or in all cases of doubt seek medical advice.
- Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.
- Skin contact : Wash with water and soap as a precaution.
- Eye contact : Rinse with plenty of water. If eye irritation persists, consult a specialist.
- 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.

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Most important symptoms and effects, both acute and delayed

Symptoms : Polymer fume fever, Irritation, Discomfort, Blurred vision

Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media : The product itself does not burn.

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

Special hazards arising from the substance or mixture

Specific hazards during fire fighting : In fire conditions, toxic decomposition products may be formed., (see also section 10)

Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus (SCBA)., Wear suitable protective equipment.

Further information : Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

not applicable

Environmental precautions

Environmental precautions : Prevent material from entering sewers, waterways, or low areas.

Methods and materials for containment and cleaning up

Methods for cleaning up : Shovel into suitable container for disposal.

Reference to other sections

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling : 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.

Conditions for safe storage, including any incompatibilities

Requirements for storage : No special storage conditions required. Keep container closed to prevent

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areas and containers

contamination.

Other data

: No decomposition if stored and applied as directed.

Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure controls

Engineering measures

: In the event that the polymer is heated above 300°C (572 F) local ventilation should be used to avoid exposure to fumes.

Eye protection

: Safety glasses

Hand protection

: Impervious gloves

Skin and body protection

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

Hygiene measures

: General industrial hygiene practice.

Respiratory protection

: No personal respiratory protective equipment normally required. In the case of hazardous fumes caused by overheating, wear self-contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form

: grease

Colour

: white

Odour

: none

pH

: neutral

Melting point/range

: 320 °C

Flash point

: does not flash

Thermal decomposition

: 300 °C

Relative density

: 1,89 - 1,93 at 24 °C

Water solubility

: insoluble

Other information

no data available

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10. STABILITY AND REACTIVITY

Reactivity	no data available
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: Decomposition temperature : 300 °C
Incompatible materials	no data available
Hazardous decomposition products	: Fluorinated compounds

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute oral toxicity	: ALD / rat > : 11 000 mg/kg
	: LD50 / rat > : 5 000 mg/kg
Acute oral toxicity	
• Perfluoroalkylether	: LD50 / rat : > 37 400 mg/kg
• Polytetrafluoroethylene	: LD50 / rat : > 11 280 mg/kg
Acute inhalation toxicity	
• Perfluoroalkylether	: ALC / rat : ca. > 19,54 mg/l
Acute dermal toxicity	
• Perfluoroalkylether	: ALD / rabbit ca. : > 17 000 mg/kg
Skin irritation	: rabbit Classification: Not classified as irritant Result: slight irritation
Skin irritation	
• Perfluoroalkylether	: rabbit Classification: Not classified as irritant Result: slight irritation
• Polytetrafluoroethylene	: rabbit Classification: Not classified as irritant Result: No skin irritation
	: human Classification: Not classified as irritant Result: No skin irritation

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- Eye irritation : rabbit
Classification: Not classified as irritant
Result: slight irritation
- Eye irritation
- Perfluoroalkylether : rabbit
Classification: Not classified as irritant
Result: slight irritation
- Sensitisation : guinea pig
Result: Animal test did not cause sensitization by skin contact.
- Sensitisation
- Perfluoroalkylether : human
Classification: Not a skin sensitizer.
Result: Patch test on human volunteers did not demonstrate sensitization properties.
Method: Modified Draize Test
 - Polytetrafluoroethylene : human
Classification: Not a skin sensitizer.
Result: Patch test on human volunteers did not demonstrate sensitization properties.
- Repeated dose toxicity
- Polytetrafluoroethylene : Oral - feed rat
No toxicologically significant effects were found.,
- Mutagenicity assessment
- Perfluoroalkylether : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
 - Sodium nitrite : Experiments showed mutagenic effects in cultured bacterial cells.
- Carcinogenicity assessment
- Perfluoroalkylether : no data available
 - Perfluoroalkylether : Not classifiable as a human carcinogen.
 - Sodium nitrite : Animal testing did not show any carcinogenic effects.
- Toxicity to reproduction assessment
- Perfluoroalkylether : no data available
 - Perfluoroalkylether : No toxicity to reproduction
 - Sodium nitrite : No toxicity to reproduction
- Assessment teratogenicity

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- Perfluoroalkylether : no data available
- Sodium nitrite : Active ingredient
- Human experience : Excessive exposures may affect human health, as follows:
 - Eye contact
 - Irritation, Discomfort, Blurred vision

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish

- Perfluoroalkylether : LC50 / 96 h / *Oncorhynchus mykiss* (rainbow trout): > 1 000 mg/l
The substance is a polymer and is not expected to produce toxic effects.

Toxicity to fish

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

Toxicity to aquatic invertebrates

- Perfluoroalkylether : EC50 / 48 h / *Daphnia magna* (Water flea): > 1 000 mg/l

Persistence and degradability

Biodegradability : Not readily biodegradable.

Bioaccumulative potential

Bioaccumulation : no data available

Mobility in soil

Mobility in soil : no data available

Results of PBT and vPvB assessment

PBT and vPvB assessment : no data available

Other adverse effects

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

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product : In accordance with local and national regulations.

Contaminated packaging : Dispose of container properly. If recycling is not practicable, dispose of in compliance with local regulations.

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14. TRANSPORT INFORMATION

Further information : Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Text of R-phrases mentioned in Section 3

R 8	Contact with combustible material may cause fire.
R25	Toxic if swallowed.
R50	Very toxic to aquatic organisms.

Full text of H-Statements referred to under section 3.

H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H400	Very toxic to aquatic life.

Other information professional use

Restrictions on 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.

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

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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.