

**Krytox® PFPE Oils**

Version 3.0

Revision Date 29.11.2010

Ref.150000000934

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® PFPE Oils

Types : GPL: 100, 101, 102, 103, 104, 105, 106, 107, 107-500
VPF: 1506, 1514, 1525, 1525S, 1531, 1531E, 1618, 1645,
16256, 16350
CBF: 100A, 100B, 103B
GBO: 14, 25
XHT- : 500, 750, 1000
FG: 10, 12, 15, 40, 45
AUT 1045
4442, 4402, TFO, TLC, NBF140
TLF 8996

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 Regulation (EC) No. 1272/2008.

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

Label elements

no data available



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Other hazards

The product as such is not hazardous.

Inhalation of decomposition products from overheating may cause lung irritation or shortness of breath.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Chemical Name	CAS-No.	EC-No.	Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration [%]
Perfluoroalkyl ether						100

Mixtures

not applicable

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.

Most important symptoms and effects, both acute and delayed

Symptoms : Irritation Shortness of breath

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.

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

Reference to other sections**7. HANDLING AND STORAGE****Precautions for safe handling**

Advice on safe handling : Avoid breathing vapors from overheated material.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No special storage conditions required. Keep container closed to prevent 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 350°C (662°F), local ventilation should be used to avoid exposure to fumes.

Eye protection : Safety glasses



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Hand protection	: No particular glove type is recommended, but nitrile may used.
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	: viscous liquid
Colour	: colourless
Odour	: none
pH	: neutral
Pour point	: -55 - -15 °C
Flash point	: , Method: Pensky-Martens closed cup - PMCC does not flash
Thermal decomposition	: ca. 350 °C,
Relative density	: ca. 1,86 - 1,91 at 24 °C
Water solubility	: , insoluble

Other information

no data available

10. STABILITY AND REACTIVITY

Reactivity	no data available
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Decomposes on heating.
Conditions to avoid	: Decomposition temperature : 350 °C
Incompatible materials	no data available
Hazardous decomposition products	: Hazardous thermal decomposition products: : Fluorinated compounds

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11. TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Acute oral toxicity

- Perfluoroalkylether : LD50 / rat : > 37 400 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

- Perfluoroalkylether : rabbit
Classification: Not classified as irritant
Result: slight irritation

Eye irritation

- Perfluoroalkylether : rabbit
Classification: Not classified as irritant
Result: slight irritation

Sensitisation

- Perfluoroalkylether : human
Classification: Not a skin sensitizer.
Result: Patch test on human volunteers did not demonstrate sensitization properties.
Method: Modified Draize Test

Mutagenicity assessment

- Perfluoroalkylether : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity assessment

- Perfluoroalkylether : no data available
- Perfluoroalkylether : Not classifiable as a human carcinogen.

Toxicity to reproduction assessment

- Perfluoroalkylether : no data available
- Perfluoroalkylether : No toxicity to reproduction

Assessment teratogenicity

- Perfluoroalkylether : no data available

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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 aquatic invertebrates

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

Persistence and degradability

Biodegradability : According to the results of tests of biodegradability this product is 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 available

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.

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

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Chemical Safety Assessment

no data available

16. OTHER INFORMATION**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.