



**Du Pont**  
**Material Safety Data Sheet**

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CEC01461 "Krytox" PFPE Oils Revised 10-Aug-04 Printed 13.08.2004  
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Substance ID :150000000934  
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CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

"Krytox" is a registered trademark of DuPont.

Corporate MSDS Number : DU002670  
Grade : All grades of "Krytox" PFPE oil

Tradenames and Synonyms

"Krytox" 143 Series Fluorinated Oils Grade: AA, AB, AC, AD, AX, AY, AZ & CZ  
"Krytox" 1500-1600 Series Fluorinated Vacuum Pump Fluids/Oil VPF 1506, 1514, 1525, 1618, 1625, 1645,16140, 16256, 16350, 1506RG, 1514RG and 1525RG  
"Krytox" 10X Fluorinated Oils  
"Krytox" GPL 100, 101, 102, 103, 104, 105, 106,107  
"Krytox" GBO-14  
"Krytox" R901  
"Krytox" HTF Fluid including K-5, K-6, K-7, K-8, K-9  
"Krytox" CBF 101b  
"Krytox" CBF 100b  
"Krytox" CBF 103b  
"Krytox" GPL107-500F3, 107-500  
"Krytox" VPF1531XP  
"Krytox" VPF16256f3  
"Krytox" VPF16350f3  
"Krytox" TLC  
"Krytox" TFO  
TLF- 8996  
"Krytox" 8996  
PLO  
"Krytox" AT Oil  
"Krytox" GB025 Oil  
"Krytox" GB025RG Oil  
"Krytox" GB014RG Oil  
"Krytox" 4442 Fluorinated Oil  
XHT-500 Oil  
XHT-750 Oil  
XHT-1000 Oil

Company Identification

MANUFACTURER/DISTRIBUTOR

E.I. du Pont Canada Company  
P.O. Box 2200

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Streetsville  
Mississauga, Ontario L5M 2H3

## PHONE NUMBERS

Product Information : 1-800-387-2122  
Medical Emergency : 1-800-441-3637 (24 HOURS)

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COMPOSITION/INFORMATION ON INGREDIENTS  
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## Components

Material	CAS Number	%
Perfluoroalkylether	60164-51-4	100 %

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HAZARDS IDENTIFICATION  
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## Potential Health Effects

Skin contact may cause reddening of the skin. The product was not a skin irritant or skin sensitizer in a 100 person human patch test.

Based on data from animal tests, eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.

Inhalation of fluorine containing compounds released as decomposition products from overheated or burning product may cause lung irritation and pulmonary edema which require medical treatment.

## Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

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FIRST AID MEASURES  
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## First Aid

## INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

## SKIN CONTACT

The compound is not likely to be hazardous by skin contact but cleansing the skin after use is advisable.

## EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

## Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

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FIRE FIGHTING MEASURES  
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## Flammable Properties

Flash Point : Does not ignite  
Method : PMCC

Non-combustible.

## Extinguishing Media

As appropriate for combustibles in area.

## Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment.

Decomposition at flame temperatures may form toxic fluorine compounds. Avoid breathing decomposition products.

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ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

## Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material.

Shovel or sweep up.

#### Accidental Release Measures

Place in container for disposal. Remove source of heat and flame.

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#### HANDLING AND STORAGE

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##### Handling (Personnel)

Perfluoropolyether oils are considered to be inert and of low toxicity. However, as with all lubricants it is important to observe correct hygiene practices. Avoid contact with eyes. Avoid contact with skin. Wash thoroughly after handling.

##### Storage

Keep container tightly closed. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

Keep away from heat and flames to avoid decomposition products.

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#### EXPOSURE CONTROLS/PERSONAL PROTECTION

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##### Engineering Controls

Keep container tightly closed.

Use ventilation when the oil is heated above 550 degF. Keep away from heat and flames.

##### Personal Protective Equipment

###### EYE/FACE PROTECTION

Wear safety glasses or coverall chemical splash goggles.

###### RESPIRATOR

Wear NIOSH approved respiratory protection as appropriate.

###### PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate, impervious gloves, apron, pants,

and jacket.

## Exposure Guidelines

## Exposure Limits

"Krytox" PFPE Oils

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

Solubility in Water : Not Soluble  
pH : Neutral  
Odor : Odorless  
Form : Liquid, Viscous oil  
Color : Colorless  
Specific Gravity : 1.86-1.91 @ 24 deg C (75 deg F)

Pour Point : -57 to -37.7 deg C (-70.6 to -35.9 deg F)

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable.

## Incompatibility with Other Materials

None reasonably foreseeable.

## Decomposition

Heating above 350 degC (662 degF) may form potentially toxic fluorine compounds. Depolymerization may occur in the presence of some metal oxides at temperatures above 288 degC (550 degF). Decomposition occurs at increasing rates as temperature is raised above 355 degC (670 degF).

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

Inhalation 4 Hour ALC: >19.54 mg/L in rats  
Skin Absorption ALD: >17,000 mg/kg in rabbits  
Oral ALD: >25,000 mg/kg in rats

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The product is a mild skin and eye irritant, but is not a skin sensitizer in tests on animals. A single inhalation exposure produced nonspecific effects such as respiratory irritation. Exposure to thermal decomposition products produced irritation, irregular respiration, tremors and increased liver weight. Repeated inhalation exposures to 10, 100, or 1000 mg/m3 caused increased lung weights and microscopic particle-laden macrophages in the lungs and lymph nodes; this was an expected pulmonary response to high aerosol concentrations of an inert material. No animal test reports are available to define carcinogenic, developmental, or reproductive hazards. Tests have shown that the product did not cause genetic damage in bacterial cell cultures.

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ECOLOGICAL INFORMATION  
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No Information Available

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DISPOSAL CONSIDERATIONS  
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Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

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TRANSPORTATION INFORMATION  
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Shipping Information

Not Regulated as a hazardous material by DOT, IMO, or IATA.

Shipping Information -- Canada

This material is Not Regulated.

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REGULATORY INFORMATION  
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U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : No

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Fire : No  
Reactivity : No  
Pressure : No

Canadian Regulations

This is not a WHMIS Controlled Product.

CEPA Status : DSL: REPORTED/INCLUDED.

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OTHER INFORMATION  
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NFPA, NPCA-HMIS

NPCA-HMIS Rating  
Health : 1  
Flammability : 0  
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

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The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS  
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Chemical Solutions Enterprise E.I. du Pont Canada Company  
7070 Mississauga Rd.  
Mississauga, Ontario, L5M 2H3  
(905) 821-3300.

End of MSDS