

**Krytox® XHT-500AF**

Version 2.0

Revision Date 11/15/2010

Ref. 130000010997

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® XHT-500AF  
Tradename/Synonym : XHT-500AF  
KDP-4558  
Krytox XHT-500AF

MSDS Number : 130000010997

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

## Potential Health Effects

Skin : May cause skin irritation. Discomfort, itching, redness, or swelling.

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

## 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		65 - 80 %
Graphite	7782-42-5	5 - 20 %
Molybdenum disulphide	1317-33-5	2 - 15 %
Disodium sebacate	17265-14-4	0 - 10 %

**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 : closed cup  
does not flash

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- Thermal decomposition : ca. 350 °C (662 °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 : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- 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.  
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 350°C (662°F), local ventilation should be used to avoid exposure to fumes.

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**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 : Preventive skin 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  
Odor : none  
pH : neutral  
Specific Gravity : ca. 2 - 2.05 at 24 °C (75 °F)  
Water solubility : negligible

**SECTION 10. STABILITY AND REACTIVITY**

- Stability : Stable under recommended storage conditions.
- Conditions to avoid : Decomposition temperature 350 °C (662 °F)
- Hazardous decomposition products : Hazardous thermal decomposition products:  
Fluorinated compounds

**SECTION 11. TOXICOLOGICAL INFORMATION**

Perfluoropolyether


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Dermal ALD : ca. > 17,000 mg/kg , rabbit  
 Oral LD50 : > 37,400 mg/kg , rat  
 Inhalation 4 h ALC : ca. > 19.54 mg/l , rat  
 Skin irritation : slight irritation, rabbit  
 Eye irritation : slight irritation, rabbit  
 Skin sensitization : Patch test on human volunteers did not demonstrate sensitization properties., human  
 Mutagenicity : Did not cause genetic damage in cultured bacterial cells.  
 Further information : The substance is a polymer and is not expected to produce toxic effects.

## Graphite

Oral LD50 : > 5,000 mg/kg , rat  
 Inhalation : No toxicologically significant effects were found.  
 Eye irritation : No eye irritation, animals (unspecified species)  
 Repeated dose toxicity : Inhalation  
 animals (unspecified species)  
 lung effects, Inflammation

## Molybdenum disulphide

Dermal LD50 : > 2,000 mg/kg , rat  
 Oral LD50 : > 2,000 mg/kg , rat  
 Inhalation LC50 : > 2.82 mg/l , rat  
 An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.  
 Skin irritation : No skin irritation, rabbit  
 Eye irritation : Mild eye irritation, rabbit  
 Skin sensitization : Did not cause sensitization on laboratory animals., guinea pig

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Repeated dose toxicity : Inhalation  
guinea pig  
Increased respiratory rate

Oral  
rat  
No toxicologically significant effects were found.

Disodium sebacate

Oral LD50 : &gt; 6,000 mg/kg , rat

Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

**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) &gt; 1,000 mg/l

Molybdenum disulphide

96 h NOEC : Oncorhynchus mykiss (rainbow trout) &gt; 750 mg/l

Disodium sebacate

: This product has no known eco-toxicological effects.

**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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