

**The MSDS format adheres to the standards and regulatory requirements
of the United States and may not meet regulatory requirements
in other countries.**

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Material Safety Data Sheet

"KRYTOX" LVP Fluorinated Grease

5806PP Revised 5-NOV-1993

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"KRYTOX" is a registered trademark of DuPont.

Corporate MSDS Number : DU002667

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Chemical Solutions Enterprise

1007 Market Street

Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.

302-774-1000)

Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S.

703-527-3887)

**Medical Emergency : 1-800-441-3637 (outside the U.S.
302-774-1000)**

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material CAS Number %

Perfluoroalkylether 60164-51-4 70

Polytetrafluoroethylene 9002-84-0 30

HAZARDS IDENTIFICATION

Potential Health Effects

ANIMAL DATA:

Perfluoroalkylether:

Inhalation 4 hour ALC: 19.54 mg/l in rats

Skin absorption ALD: >17,000 mg/kg in rats

Oral ALD: >25,000 mg/kg in rats

The product contains a mild and a slight eye irritant.

Polytetrafluoroethylene is not a skin irritant in animals. A

single inhalation exposure to perfluoroalkylether caused

nonspecific effects such as respiratory irritation. Toxic

effects described in animals exposed to decomposition

products of the product formed above 260 degC (500 degF)

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(HAZARDS IDENTIFICATION - Continued)

include lung irritation, irregular respiration, tremors and increased liver weight. Pulmonary edema and death occurred in rats exposed to the decomposition products of perfluoroalkylether formed at around 290 degC (554 degF). A single inhalation exposure to polytetrafluoroethylene caused irritation of the lungs in animals. Repeated ingestion exposures to polytetrafluoroethylene caused no significant toxicological effects; long-term ingestion exposure caused altered white blood cell counts.

HUMAN HEALTH EFFECTS OF OVEREXPOSURE:

Skin contact may cause skin irritation with discomfort or rash. Prolonged skin contact may cause redness and inflammation of the hair follicles without skin sensitization.

Eye contact may cause eye irritation with discomfort, tearing or blurring of vision.

Inhalation of fluorine compounds released as decomposition products at around 290 degC (554 degF) may cause lung irritation and pulmonary edema which require medical treatment. Inhalation of burning material or smoke from cigarettes or tobacco contaminated with this product may cause polymer fume fever. Polymer fume fever is a flu-like illness with fever, chills and sometimes cough, which occurs

several hours after exposure and subsides within 24-48 hours even in the absence of treatment. Polymer fume fever does not cause permanent injury and the effects are not cumulative.

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.

FIRST AID MEASURES

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

Flush skin with water after contact. Wash contaminated clothing before reuse.

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(FIRST AID MEASURES - Continued)

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.

FIRE FIGHTING MEASURES

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.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL)

sections before proceeding with clean-up. Use appropriate

PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Accidental Release Measures

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

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HANDLING AND STORAGE

Handling (Personnel)

**Avoid contact with eyes. Avoid contact with skin. Wash
thoroughly after handling. Do not store or consume food, drink or
tobacco in areas where they may become contaminated with this
material.**

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.**

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Keep container tightly closed.

Keep away from heat and flames.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses or coverall chemical splash goggles.

RESPIRATORS

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

Applicable Exposure Limits

Polytetrafluoroethylene

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

AEL * (DuPont) : 10 mg/m³, 8 Hr. TWA, total dust

5 mg/m³, 8 Hr. TWA, respirable dust

*** AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.**

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PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Melting Point : 320 C (608 F)

Solubility in Water : Negligible WT%

pH : Neutral

Odor : Odorless

Form : Solid, waxy grease

Color : White

Specific Gravity : 1.89-1.93 @ 24 deg C (75 deg F)

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Incompatibility with Other Materials

None reasonably foreseeable.

Polymerization

Polymerization will not occur.

Other Hazards

Decomposition: Heating above 260-290 deg C (500-554 deg F)

may form potentially toxic fluorine compounds.

Depolymerization may occur in the presence of some metal

oxides at temperatures above 288 deg C (550 deg F).

Decomposition occurs at increasing rates as temperature is raised above 355 deg C (670 deg F).

DISPOSAL CONSIDERATIONS

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

Shipping Information

DOT

Proper Shipping Name : Not regulated.

Shipping Containers

2, 8 oz. polyethylene tubes

1 lb. double wall jars (polypropylene inner; polystyrene outer)

5 - 15 lb. polyethylene pails

50 - 75 lb. white high density polyethylene pails

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes

Chronic : No

Fire : No

Reactivity : No

Pressure : No

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating

Health : 1

Flammability : 0

Reactivity : 0

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

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.

Responsible for MSDS : MSDS Coordinator

> : DuPont Chemical Solutions Enterprise

Address : Wilmington, DE 19898

Telephone : (800) 441-7515

Indicates updated section.

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(Continued)

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS