DryFilm RA/W
CEC01537 Revised 9-FEB-2007 Printed 9-FEB-2007

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Product Use

Release Agent

Dry Lubricant

Tradenames and Synonyms

Telomer of Tetrafluoroethylene in Water

Company Identification

MANUFACTURER/DISTRIBUTOR
E.I. du Pont Canada Company
P.O. Box 2200
Streetsville
Mississauga, Ontario L5M 2H3

PHONE NUMBERS
Product Information : 1-800-387-2122
Medical Emergency : 1-800-441-3637 (24 hours)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Poly-TFE, Omega-Hydro-Alpha-(Methylcyclohexyl)-	65530-85-0	14-15 WT%
Polyoxyethylene Tridecyl Ether	24938-91-8	2-3 WT%
Polytetrafluoroethylene	9002-84-0	5-6 WT%
Water	7732-18-5	76-79 WT%

HAZARDS IDENTIFICATION

Potential Health Effects

Skin contact with the product may cause skin irritation with discomfort or rash. Polyoxyethylene Tridecyl Ether was not an irritant or skin sensitizer when tested in a human patch test with 50 people.

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

Inhalation may cause upper respiratory tract irritation with coughing and discomfort.

(HAZARDS IDENTIFICATION - Continued)

Inhalation of PTFE dust may cause generalized irritation of the nose, throat, and lungs with cough, difficulty breathing or shortness of breath.

Inhalation of fluorine compounds released as decomposition products above 290 degC (554 degF) may cause lung irritation and pulmonary edema which require medical treatment. Inhalation of fumes or smoke from overheated or burning grease may cause polymer fume fever, chills, and sometimes cough, of approximately 24 hours duration. Repeated episodes of polymer fume fever may cause lung damage.

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.

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 beneficial. Suspend 50 g activated charcoal in 400 mL water and mix well. Administer 5 mL/kg, or 350 mL for an average adult.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: None
Method: TCC

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

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

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.

Spill Clean Up

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

HANDLING AND STORAGE

Handling (Personnel)

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

Storage

Keep away from heat, sparks and flames. Keep container tightly closed.

Freezing will effect the physical condition of this product, but will not damage it. Thaw and mix well before use.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear 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.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	: 100 C (212 F)
Vapor Pressure	: 24 mm Hg @ 25 C (77 F)
Melting Point	: 295-305 C (563-581 F)
Freezing Point	: 0 C (32 F)
% Volatiles	: 75-80 %
Solubility in Water	: Dispersible
pH	: 4-6
Odor	: Sweet, Faint.
Form	: Liquid Dispersion.
Color	: White to Tan.
Density	: 1.09 g/cc

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Decomposes with heat.

Decomposition temperature: 325-400 C (617-752 F)

Hazardous gases/vapors produced are hydrogen fluoride, carbon monoxide, and carbonyl fluoride.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Polyoxyethylene Tridecyl Ether:

Oral LD50: 3950 mg/kg in rats

Poly-TFE, omega-hydro-alpha-(methylcyclohexyl)- is untested for skin and eye irritancy, and is untested for skin sensitization in animals. The effects in animals from acute, subchronic, or chronic exposure by inhalation, ingestion, or skin contact have not been determined. No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive hazards.

Polyoxyethylene Tridecyl Ether is a mild skin irritant, is a moderate eye irritant, and is untested for animal sensitization. The effects in animals from short exposure by inhalation, ingestion, or skin contact have not been determined. No animal test reports are available to define carcinogenic, mutagenic, embryotoxic, or reproductive hazards.

Animal testing indicates that PTFE is not a skin irritant. Repeated exposure to PTFE by ingestion caused no significant toxicological effects. Possible effects on white blood cell counts were found in rats fed 25% PTFE in the diet for 90 days, however any changes were within normal variability and were considered to be of no toxicological significance. In rats, single exposure to dusts of undegraded PTFE by

(TOXICOLOGICAL INFORMATION - Continued)

inhalation caused irritation of the lungs. Exposure to thermal decomposition products of PTFE caused lung injury whose severity depends upon the temperature and exposure conditions. Birds appear to be especially susceptible to the toxic effects of fluoropolymer decomposition products. In rats, exposure to freshly formed low molecular weight polymer fragments (fume) produced by continuous heating of the polymer above 400 degC may produce acute pulmonary inflammation. When the concentration of fluoropolymer fragment fumes increases, deaths may occur from pulmonary edema and hemorrhage. Exposure to fume aged for several minutes, markedly reduces the toxicity. At higher temperatures involving gross thermal decomposition of the polymer, deaths occurred due to pulmonary edema from lethal concentrations of fluoropolymer fume and/or fluorinated gas decomposition products. No adequate animal data are available to define the carcinogenicity or developmental hazards of PTFE. No adequate reports of genetic testing were found. No animal data are available to define the reproductive toxicity of PTFE.

ECOLOGICAL INFORMATION

No Information Available

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

TRANSPORTATION INFORMATION

Shipping Information

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

Shipping Information -- Canada

This material is Not Regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : No
Fire : No
Reactivity : No
Pressure : No

All functional components are TSCA-listed.

State Regulations (U.S.)

Warning! This material contains less than 0.16 ppm Ethylene Oxide, and less than 2.4 ppm 1,4-Dioxane, chemicals known to the state of California to cause cancer, birth defects and/or other reproductive harm.

Canadian Regulations

WHMIS Classification:

CLASS D Division 2 Subdivision B - Toxic Material. Skin or Eye Irritant.

CEPA Status : DSL: REPORTED/INCLUDED.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 2
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.

Responsibility for MSDS

(Continued)

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

End of MSDS