



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

DuPont
Material Safety Data Sheet

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"ZONYL" PFBE Fluorotelomer Intermediate
5427PP Revised 18-DEC-2007

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"Zonyl" is a registered trademark of DuPont.

Corporate MSDS Number : DU004604

Tradenames and Synonyms

PFBE

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont
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	%
Perfluorobutylethylene	19430-93-4	95-99
Poly-TFE, alpha, omega-Difluoro-	65530-82-7	1-3
	97659-47-7	
Alkenes, C8-14 alpha-, gamma-omega-perfluoro-		0-3

HAZARDS IDENTIFICATION

Potential Health Effects

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

(HAZARDS IDENTIFICATION - Continued)

Based on related products, inhalation of spray or mist may cause nasal, throat, or lung irritation. Inhalation of large amounts of respirable particles may be toxic to the lungs. Symptoms may be modest initially, followed in hours by severe shortness of breath requiring prompt medical attention.

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 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

Hazardous decomposition products including carbon dioxide, carbon monoxide, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

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

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.

Spill Clean Up

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

Accidental Release Measures

Flush spill area with water.

HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes. Wash thoroughly after handling.

Storage

Keep container tightly closed.

Keep away from open flames and heated surfaces above 200 degrees C (392 deg F).

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Keep container tightly closed. Use only with adequate ventilation. Vent heated extruder or dryer fumes outside work area. Do not aerosolize. In spray applications, use airless type pressure spray equipment at less than 60 psi, and exhaust ducts, drip pans, or other design features to minimize worker exposure to mists and overspray.

Keep away from open flames and heated surfaces above 200 degC (392 degF).

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

Perfluorobutylethylene

PEL (OSHA)	: None Established
TLV (ACGIH)	: 100 ppm, 8 Hr. TWA
AEL * (DuPont)	: 100 ppm, 8 Hr. TWA

* 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.

Exposure Guideline Comments

No AEL has been established for this product. Other products with fluorinated material components have an AEL of 0.1 mg/m³ to 1 mg/m³ (8 hour TWA) for respirable size aerosol particles.

Air monitoring studies conducted at customer sites indicates that the use of the recommended low pressure (less than 60 psi) airless type, garden type or deck specific hand pump sprayer with spray tip orifice minimum of 0.031 inches in diameter does not produce respirable size aerosol particle concentrations near the AEL.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : 58 C (136 F) @ 760 mm Hg
% Volatiles : 100 WT%
Solubility in Water : Negligible
Odor : Ethereal
Form : Liquid, Clear
Color : Colorless
Specific Gravity : 1.4

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Hazardous decomposition products including carbon dioxide, carbon monoxide, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.

Polymerization

Homopolymerization will not occur. Copolymerization can occur in the presence of free radical sources, heat or UV light.

TOXICOLOGICAL INFORMATION

Animal Data

Inhalation 1 hour ALC: >7,178 ppm in mice
Oral LD50: >25,000 mg/kg in rats

The product is not a skin irritant, is a mild eye irritant, and is untested for skin sensitization in animals. Repeated exposure to high levels (5 vol%) produced blood changes (decreased platelets and increased monocyte). Tests in animals demonstrate no developmental toxicity. The product does not produce genetic damage in bacterial cell cultures but has not been tested in animals. Tests for carcinogenic and reproductive activity have not been performed.

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.

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.

Responsibility for MSDS : MSDS Coordinator
Address : DuPont Chemical Solutions Enterprise
Wilmington, De. 19898
Telephone : 800-441-7515

Indicates updated section.

(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