



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" TELB Fluorotelomer Intermediate  
5987PP Revised 19-MAR-1997  
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CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

"ZONYL" is a registered trademark of DuPont.

Corporate MSDS Number : DU004611

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)

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COMPOSITION/INFORMATION ON INGREDIENTS  
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Components

Material	CAS Number	%
Alkyl Iodides, C4-20, Gamma-Omega-Perfluoro-	68188-12-5	99-100

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HAZARDS IDENTIFICATION  
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# Potential Health Effects

Inhalation may cause irritation of the upper respiratory passages with coughing and discomfort.

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.

## (HAZARDS IDENTIFICATION - Continued)

## 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

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.

Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances. Activated charcoal may be given but should be used with caution since it may induce vomiting.

Steroid therapy in mild to moderate cases does not improve outcome. Bacterial pneumonia often occurs after exposure, but prophylactic antibiotics are not indicated and should be reserved for documented bacterial pneumonia.

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FIRE FIGHTING MEASURES  
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## 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, and throat irritation or toxic effects.

## Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

## Fire Fighting Instructions

Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Wear full protective equipment.

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

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

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HANDLING AND STORAGE  
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## # Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

Avoid circumstances that produce respirable particles unless suitable ventilation and respirator are used.

Before using, read the "Zonyl" Fluorochemical Intermediates Product Bulletin.

## Storage

Keep container tightly closed.

## (HANDLING AND STORAGE - Continued)

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

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EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## # Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

Vent 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.

## 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

## Exposure Limits

"ZONYL" TELB Fluorotelomer Intermediate  
PEL (OSHA) : None Established  
TLV (ACGIH) : None Established

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

Boiling Point : 130-270 C (266-518 F)  
pH : Acidic  
Odor : Slightly Acid, Iodine  
Form : Solid, Waxy  
Color : Pale to Dark Tan  
Specific Gravity : 1.8 @ 57C (135F)  
Thickening Point : 30 to 50 deg C (96 to 122 deg F)

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable.

## 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, and throat irritation or toxic effects.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

Inhalation ALC:	6 mg/L in rats
Oral LD50:	>17,000 mg/kg in rats

The product is not a skin irritant, is untested for eye irritancy, and is not a skin sensitizer in animals. A single inhalation exposure produced labored respiration, weight loss, salivation, and prostration. A single ingestion exposure produced labored respiration, weight loss and prostration. No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive effects.

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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.

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TRANSPORTATION INFORMATION  
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## # Shipping Information

DOT/IMO  
Proper Shipping Name : 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  
Fire : No  
Reactivity : No  
Pressure : No

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OTHER INFORMATION  
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## NFPA, NPCA-HMIS

NPCA-HMIS Rating  
Health : 2  
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 : MSDS Coordinator  
Address : DuPont Chemicals  
Wilmington, De. 19898  
Telephone : 800-441-7515

# Indicates updated section.

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