

The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries. DuPont 1 Page Material Safety Data Sheet _____ "ZONYL" TA-N Fluorotelomer Intermediate Revised 16-JAN-2006 6115PP CHEMICAL PRODUCT/COMPANY IDENTIFICATION _____ Material Identification "Zonyl" is a registered trademark of DuPont. Corporate MSDS Number : DU008173 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 % 87-95 Perfluoroalkylethyl Acrylate Esters 65605-70-1 Perfluorohexylethyl Acrylate 17527-29-6 1-7 Perfluorooctylethyl Acrylate 27905-45-9 42-56 Perfluorodecylethyl Acrylate 17741-60-5 22-30 Perfluorododecylethyl Acrylate 34395-24-9 6-12 Perfluorotetradecylethyl Acrylate 34362-49-7 1-5 Perfluorohexadecylethyl Acrylate 65150-93-8 0.1-2 7732-18-5 Water 0 - 1Perfluoroalkylethyl Alcohol 65530-60-1 0.1 - 4678-39-7 1,1,2,2-Tetrahydroperfluoro-1-Decanol 0.1-2 865-86-1 1,1,2,2-Tetrahydroperfluoro-1-Dodecanol 0-1 Perfluoroalkylethyl Acrylate Polymer NOTAVAIL. 0.1 - 371215-70-8 Perfluoroalkylethyl Iodides (Telomer B) 1 - 4Perfluorooctylethyl Iodide 2043-53-0 0.5-2 Perfluorodecylethyl Iodide 2043-54-1 0.2-1

HAZARDS IDENTIFICATION

Potential Health Effects

Skin contact with the product may cause irritation.

Eye contact with the product may cause irritation.

The product contains Telomer B. Inhalation of Telomer B 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.

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. 6115PP

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(FIRST AID MEASURES - Continued)

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	:	>110	С	(>230	F)
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

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. 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

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

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Do not store or consume food, drink, or tobacco in areas where they may become contaminated with this material. Avoid circumstances that produce respirable particles unless suitable ventilation and respirator are used.

Storage

Keep container in a cool place. Store in a cool place. Keep container tightly closed.

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.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses or coverall chemical splash goggles.

RESPIRATORS

Where there is potential for airborne exposures wear NIOSH approved respiratory protection.

PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

Exposure Guidelines

6115PP DuPont Page 5 Material Safety Data Sheet Applicable Exposure Limits Perfluoroalkylethyl Alcohol \mathbf{PEL} (OSHA) : None Established TLV (ACGIH) : None Established AEL * (DuPont) : 5 mg/m3, 8 Hr. TWA 15 mg/m3, 15 minute 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 indicate 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 : 100-220 C (212-428 F) @ 10 mm Hg Approx. Boiling Point Vapor Density : >1 (Air = 1)Melting Point : 50-60 C (122-140 F) % Volatiles : <2 WT% Solubility in Water : 0 WT% pН : 5-7 @ 20 degC Odor : Mild acrylic Form : Semi-solid : Yellow to amber Color Specific Gravity : 1.6 @ 45C STABILITY AND REACTIVITY _____ Chemical Stability Stable at normal temperatures and storage conditions. Air inhibits polymerization. Incompatibility with Other Materials Incompatible with peroxides and free radical sources.

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(STABILITY AND REACTIVITY - Continued)

Decomposition

Decomposes with heat. 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

Polymerization can occur.

Conditions leading to polymerization are free radical sources, heat and UV light.

TOXICOLOGICAL INFORMATION

Animal Data

The product is a slight skin irritant in animals. In a Bacterial Reverse Mutation Test with an Independent Repeat Assay, the product did not cause a positive response in the presence and absence of Aroclor-induced rat liver S9. "Zonyl" TA-N was negative for the induction of structural and numerical chromosome aberrations in the in vitro mammalian chromosome aberration test using human peripheral lymphocytes. The product was negative in salmonella gene mutation and mammalian gene mutation assays. Product is not biodegradable.

The product contains Telomer B.

Telomer B:

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

Telomer B 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. 6

_____ 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 TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312 Acute : Yes Chronic : No : No Fire Reactivity : No Pressure : No In compliance with TSCA Inventory requirements. OTHER INFORMATION _____ NFPA, NPCA-HMIS NPCA-HMIS Rating : 2 Health Flammability : 1 Reactivity : 1 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, Delaware 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