



ZYT031

MATERIAL SAFETY DATA SHEET

E. I. DU PONT DE NEMOURS & CO
POLYMER PRODUCTS DEPARTMENT
1007 MARKET STREET
WILMINGTON, DE 19898

TELEPHONE NUMBERS
MEDICAL EMERGENCY 800-441-3637
PRODUCT INFORMATION 800-441-7515
TRANSPORTATION EMERGENCY 800-441-9300

MATERIAL IDENTIFICATION

| | |
|-----------------------|---|
| PRODUCT NAME | Zytel® Nylon Resins EFE4162 BK152; EFE4162HS BK152; FE4141HS NC010; FE4162HSL BK152 |
| CHEMICAL NAME | Olefin modified polyhexamethylene adipamide - Toughened nylon. |
| CAS REGISTRY NUMBER | NA |
| TSCA INVENTORY STATUS | All reportable ingredients are listed in the TSCA Chemical Substance Inventory. |
| DOT HAZARD CLASS | Not regulated |
| SHIPPING NAME | NA |
| PREPARER | D. L. Liczwek |
| DATE | August 16, 1993 |

HAZARDOUS COMPONENTS

| | |
|-----------------|---|
| MATERIAL | Additives not hazardous by 29CFR1910.1200 |
| CAS NO. | NA |
| CONCENTRATION % | NA |
| OSHA PEL | NA |
| OSHA STEL | NA |
| ACGIH TLV | NA |
| ACGIH STEL | NA |
| DUPONT AEL | NA |

SUBSTANCES PRESENT AT A CONCENTRATION OF 0.1% OR MORE
CLASSIFIED AS A CARCINOGEN BY IARC, NTP OR OSHA: None are known.

PHYSICAL/CHEMICAL DATA

| | |
|---------------------|-----------|
| APPEARANCE | Granules |
| ODOR | None |
| MELTING POINT | NA |
| SOLUBILITY IN WATER | Insoluble |
| VOLATILE CONTENT | ca 1% |
| SPECIFIC GRAVITY | NA |

FIRE AND EXPLOSION HAZARD DATA

FLASH IGNITION TEMPERATURE 400°C METHOD ASTM D1929

UNUSUAL FIRE, EXPLOSION HAZARDS Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.

HAZARDOUS COMBUSTION PRODUCTS Primarily ammonia, carbon monoxide; small amounts of hydrogen cyanide, aldehydes.

SPECIAL FIRE FIGHTING INSTRUCTIONS No special instructions.

EXTINGUISHING MEDIA Water, carbon dioxide, foam, dry chemical.

HAZARDOUS REACTIVITY

STABILITY AT ROOM TEMPERATURE Stable.

MATERIALS TO AVOID Strong acids and oxidizing agents.

CONDITIONS TO AVOID Heating above 340°C.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, aldehydes, acids.

POLYMERIZATION Will not occur.

HEALTH HAZARD DATA

Read Section 12, Safety, in "Zytel® Molding Guide", Bulletin E-97221, before using Zytel®. Face mask and protective clothes recommended for abnormal processing problems.

ACUTE OR IMMEDIATE EFFECTS: ROUTES OF ENTRY AND SYMPTOMS

INGESTION Not a probable route of exposure.

SKIN Molten polymer causes thermal burns.

EYE Mechanical irritation only.

INHALATION Very low toxicity. Granules not respirable.

EMERGENCY FIRST AID

- If exposed to fumes from overheating, move to fresh air. Consult a physician if symptoms persist.
- Wash skin with soap and plenty of water.
- Flush eyes with water. Consult a physician if symptoms persist.
- If molten polymer contacts skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical attention for thermal burn.

CHRONIC EFFECTS None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE None known.

PROTECTION INFORMATION

EYE Safety glasses are recommended.

SKIN Protective gloves are required when handling hot polymer. Also long sleeve cotton shirt and long pants if handling molten polymer.

VENTILATION Local exhaust at processing equipment to keep particulate below 15 mg/m^3 (OSHA limit for nuisance dusts).

RESPIRATOR None under normal processing if ventilation is adequate.

DISPOSAL

SPILL, LEAK OR RELEASE Sweep up to prevent a slipping hazard.

WASTE DISPOSAL Landfill or incineration in compliance with federal, state, and local regulations.

AQUATIC TOXICITY Toxicity is expected to be low based on insolubility of polymer in water.

STORAGE CONDITIONS Cool, dry place. Keep containers tightly closed to prevent moisture absorption and contamination.

The information in this Material Safety Data Sheet relates only to the specific material(s) designated herein and does not relate to use in combination with any other material or in any process.

NA = Not applicable

NE = Not established

AEL = Du Pont Company's Acceptable Exposure Limit

< = New or revised information in this section when "<" is in right margin

SECTION 313 SUPPLIER NOTIFICATION

This product contains no known toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

STATE RIGHT TO KNOW LAWS

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various state hazardous substances lists, to the best of our knowledge the products on this Material Safety Data Sheet contain no such substances except for those specifically listed below:

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1% OR MORE: None known.

SUBSTANCES ON THE PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 0.01% OR MORE: None known.

NONHAZARDOUS INGREDIENTS PRESENT AT A CONCENTRATION OF 3% OR MORE REQUIRED TO BE LISTED BY PENNSYLVANIA: Since this product contains no hazardous substances as defined by the Pennsylvania R-T-K Regulations, a MSDS is not required by law.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER: None known.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: None known.

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Dichloromethane

POTENTIAL HAZARDS

- Vapors may cause dizziness or suffocation.
- Exposure in an enclosed area may be very harmful.
- Contact may irritate or burn skin and eyes.
- Fire may produce irritating and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Most vapors are heavier than air.
- Air vapor mixtures may explode when ignited.
- Container may explode in heat of fire.

PUBLIC SAFETY

• CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.

• Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.

• Keep unauthorized personnel away.

• Stay upwind.

• Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).

• Keep out of low areas.

• Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

• Wear fully protective self-contained breathing apparatus (SCBA).

• Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

• Large Spill

• Consider initial downwind evacuation for at least 100 meters (330 feet).

• Fire

• If tank or rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions.

• Also consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO₂ or water spray.

Large Fires

- Dry chemical, CO₂, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from the ends of tanks.

SPILL/LEAK

• ELIMINATE all ignition sources (no-smoking, flares, sparks or flames in immediate area)

• Stop leak if you can do it without risk.

Small Liquid Spills

• Take up with sand, earth or other noncombustible absorbent material.

Large Spills

• Dike far ahead of liquid spill for later disposal.

• Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

• Move victim to fresh air. • Call emergency medical care.

• Apply artificial respiration if victim is not breathing.

• Administer oxygen if breathing is difficult.

• Remove and isolate contaminated clothing and shoes.

• In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

• For minor skin contact, avoid spreading material on unaffected skin.

• Wash skin with soap and water.

• Keep victim warm and quiet.

• Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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