

**ENSINGER-HYDE
DIVISION OF ENSINGER INC.**

365 MEADOWLANDS BLVD
WASHINGTON, PA 15301
PHONE 724-746-6050

1 MAIN STREET
GRENLOCH, NJ 08032
856-227-0500

HYDEX™ 4101L PBT MATERIAL SAFETY DATA SHEET Page 1 of 3

SECTION I - Product Identification

Product Identifier: Hydex™ 4101L Natural
Manufacturer: Ensinger - Hyde
 365 Meadowlands Blvd
 Washington, PA 15301
Emergency Phone Number: 724-746-6050
Date Prepared: April 17, 2007
Prepared by: Kenneth S. Grier
Product Description: Lubricated polybutylene terephthalate

SECTION II - Hazardous Ingredients

Polybutylene terphthalate (PBT) (CAS# 30965-26-5)
 Polytetrafluoroethylene (PTFE) (CAS# 9002-84-0)
 Components not precisely identified are proprietary. All components appear on TSCA

SECTION III - Physical/Chemical Characteristics

Boiling Point: Not Applicable
VAP Press: Not Applicable
VAP Density: Not Applicable
% Volatile by Volume: 0.5
Water Solubility: Not Applicable
Specific Gravity: 1.34
Melt Point 228
Appearance: white
Odor: none

SECTION IV - Fire and Explosion Hazard

Flash Point: 63 C
Method Used: N/A
Autoignition Temperature: 371 C
Extinguishing Media: Water, fog, foam, CO2, dry chemical
Hazard: No data given

Fire-fighting Equipment: Use a positive-pressure self-contained breathing apparatus to prevent exposure to hazardous decomposition products generated under fire conditions.

SECTION V - Reactivity Data

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Stability: (Conditions to Avoid): Stable
Incompatibility: (Specific materials to avoid): Strong bases, oxidizing acids.

SECTION VI - Health Hazard Data

Eye: Solids or dust may cause irritation or corneal injury due to mechanical action. Vapors may irritate eyes.
Skin Contact: Essentially nonirritating to skin. Mechanical injury only. Molten material may burn skin.
Skin Absorption: Skin absorption is unlikely due to physical properties.
Ingestion: Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low.
No hazards anticipated from ingestion incidental to industrial exposure.

Inhalation: dust may cause irritation to upper respiratory tract. At room temperature, exposure to vapors are unlikely due to physical properties. No toxic effects are known to be associated with inhalation or ingestion of dust.

Systemic & Other Effects: No specific data; however, repeated exposures to the unheated material are not anticipated to cause any significant adverse effects. Processing fumes may cause eye and respiratory irritation upon repeated exposure under normal processing conditions. Heating this material to temperatures above 750 F for prolonged periods of time can produce harmful fumes which may be toxic. Therefore, proper ventilation is recommended

Emergency and First Aid Procedures

1. **Eye:** Remove contact lenses at once. Immediately flush eyes well with copious quantities of water or normal saline for at least 20-30 minutes. *Seek Medical Attention*
2. **Skin:** Wash skin thoroughly with soap and water. *Seek Medical Attention if rash or burn occurs.*
3. **Ingestion:** Not probable. If a large amount is swallowed, *Seek Medical Attention.*
4. **Inhalation:** Not likely to be inhaled due to physical form.
5. **Melt Processing:** For molten plastic skin contact, cool rapidly with water and *Immediately Seek Medical Assistance. Do Not Use Solvent for Removal.*

For processing fume inhalation irritation, leave contaminated area and breathe fresh air. If coughing, difficult breathing or any other symptoms develop *Seek Medical Attention* at once, even if symptoms develop at a later time.

For skin contact with fume condensate, immediately wash thoroughly with soap and water. If irritation develops seek medical attention.

SECTION VII - Precautions for Safe Handling and Use

Prevent contact with skin and eyes. Use good industrial hygiene practices. Provide adequate ventilation.

Storage: Store in a dry place away from moisture, excessive heat and sources of ignition. Avoid storage near foods to prevent food contamination.

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SECTION VIII - Control Measures

Exposure Guidelines: None established

Ventilation: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection: For most conditions, no respiration should be needed; if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator. In dusty atmospheres, use an approved dust respirator.

Skin Protection: No precautions other than clean body-covering clothing should be needed.

Eye Protection: Safety glasses should be sufficient for most operations; however, for dusty operations wear chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator.

Special Precautions to be Taken in Handling and Storage: Store in sealed containers. Protect from atmospheric moisture. Typically processing temperatures range from 500 F - 550 F. Molten material can produce thermal burns. Avoid skin contact. Fumes released during normal processing may cause irritation. Provide adequate ventilation. Heating the resin above normal processing temperatures may cause hazardous decomposition products. Do not overheat. Handling and fabrication of plastic resins can result in the generation of dust. Dust results from sawing, filing, and sanding of plastic parts in post molding operations. Quantities of dust in air may be combustible and may cause respiratory irritation.

Personal Protection:

1. **Eye/Face:** Wear safety glasses with side shields or chemical goggles. In addition, use full face shield when cleaning processing fume condensates from hoods, ducts and other surfaces.
2. **Skin:** When handling pellets avoid prolonged or repeated contact with skin. When melt processing product wear long pants, long sleeves, well insulated gloves and face shield when applicable. Use appropriate protective clothing, including chemical resistant gloves, to prevent any contact with processing fume condensates.
3. **Respiratory:** When processing fumes are not adequately controlled, use respirator approved for protection from organic vapors and acid gases.

SECTION IX - Disclaimer

The information contained herein relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable. However, no representation, warranty or guarantee is made as to its accuracy and reliability of completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information pertaining to his own particular use.

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