

# Safety Data Sheet



**Hydex 101**

ISSUE DATE: 07/25/2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME: Hydex 4101  
SYNONYMS: Not Applicable  
PRODUCT COLORS: Natural

MANUFACTURER: Ensinger Inc.  
DIVISION: Stock Shapes  
ADDRESS: 365 Meadowlands Blvd., Washington, PA 15301

EMERGENCY PHONE: (724) 746-6050  
OTHER CALLS: (856) 227-0500

CHEMICAL NAME: POLY(1,4-BUTYLENE TEREPHTHALATE)  
CHEMICAL FAMILY: Polybutylene terephthalate  
CHEMICAL FORMULA: basic formula (C<sub>12</sub>H<sub>12</sub>O<sub>4</sub>)<sub>n</sub>

PRODUCT USE: Stock Shape for Machining  
PREPARED BY: Kenneth S. Grier, Technical Resource Manager

SECTION 1 NOTE: Revised July 25, 2017

## 2. HAZARDS IDENTIFICATION

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EMERGENCY OVERVIEW: Mechanical injury only.

ROUTES OF ENTRY: Eyes

### POTENTIAL HEALTH EFFECTS

EYES: Solid or dust causes irritation or corneal injury due to mechanical action.

SKIN: Essentially nonirritating to skin. Mechanical injury only. Molten material may burn skin.

INGESTION: Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low. Now 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, normal processing temperatures may generate vapors, which may cause irritation if ventilation is inadequate.



# Safety Data Sheet



## Hydex 101

ISSUE DATE: 07/25/2017

ACUTE HEALTH HAZARDS: None Known

CHRONIC HEALTH HAZARDS: None Known

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Known

CARCINOGENICITY: None Known

Particulates

- OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m<sup>3</sup> (TWA, Total Dust)
- Particulates not otherwise regulated/OSHA (PEL) 5 mg/m<sup>3</sup> (TWA, Respirable Dust)
- ACGIH: Particulates not otherwise regulated/ACGIH (TLV) 10 mg/m<sup>3</sup> (TWA, Total Dust)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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INGREDIENT:

<u>CAS NO.</u>	<u>% WT</u>
Polybutylene Terephthalate, 30965-26-5, 30968-26-5 and 26062-94-2	<100
Tetrahydrofuran, 109-99-9	<0.5

The non-hazardous components and exact percentage of the composition have been withheld as a trade secret.

This product consists primarily of high molecular weight polymers, which are not expected to be hazardous.

This product contains a proprietary blend of components encapsulated within a polymer matrix. These components are not regarded as hazardous under 2012 OSHA Hazard Communication Standard; 29CFR Part 1910.1200.

### 4. FIRST AID MEASURES

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**EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Mechanical effects only.

**SKIN:** Wash off in flowing water or shower.

**INGESTION:** No adverse effects anticipated by this route of exposure incidental to proper industrial handling. Call a poison control center/physician, if patient feels unwell.

**INHALATION:** Remove to fresh air, if effects occur. Consult a physician.



# Safety Data Sheet



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ISSUE DATE: 07/25/2017

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

## 5. FIRE FIGHTING MEASURES

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IGNITION TEMPERATURE: 420° ( 7 88°F)

EXTINGUISHING MEDIA: Foam, dry powder, water

UNUSUAL FIRE AND EXPLOSION HAZARDS: Avoid generating and accumulating dusts; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Fire will product dense black smoke containing hazardous combustion products.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and carbon dioxide

SECTION 5 NOTES: Wear full protective suit. In case of combustion, use a suitable breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

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ACCIDENTAL RELEASE MEASURES: Ventilate the area and prevent access to unauthorized people. Wear suitable personal protective equipment. Do not allow entry to drains, water courses or soil. Prevent spreading by use of suitable barriers. Take up with suitable equipment, fill up in air-tight containers and give further treatment as soon as possible.

## 7. HANDLING AND STORAGE

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HANDLING AND STORAGE: Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of processing equipment must be earth ground.

Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition.

OTHER PRECAUTIONS: Obtain special instructions, before use. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke; when machining this product. Use personal protective equipment as required.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: Standard ventilation required



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ISSUE DATE: 07/25/2017

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

**RESPIRATORY PROTECTION:** For most conditions a dust mask is sufficient; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

**EYE PROTECTION:** Safety glasses with side shields should be sufficient for most operations; however, for dusty operations wear chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator

**SKIN PROTECTION:** No precautions other than clean body-covering clothing should be needed.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** None Known

### EXPOSURE GUIDELINES:

#### Tetrahydrofuran

OSHA: Permissible Exposure Limit 200 ppm (TWA)

ACGIH: Permissible Exposure Limit 50 ppm (TWA)

Permissible Exposure Limit 100 ppm (TWA)

#### Particulates

OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m<sup>3</sup> (TWA, Total Dust)

Particulates not otherwise regulated/OSHA (PEL) 5 mg/m<sup>3</sup> (TWA, Respirable Dust)

ACGIH: Particulates not otherwise regulated/ACGIH (TLV) 10 mg/m<sup>3</sup> (TWA, Total Dust)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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APPEARANCE:	Stock shape
ODOR:	None
PHYSICAL STATE:	Solid
MELTING POINT:	228° (442° F)
FLASHPOINT:	Not Applicable
SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	600 – 900 kg/m <sup>3</sup> @ 20°
SOLUBILITY IN WATER:	Insoluble

## 10. STABILITY AND REACTIVITY

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**STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID (STABILITY):** High temperatures

**INCOMPATIBILITY (MATERIAL TO AVOID):** Strong Bases



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ISSUE DATE: 07/25/2017

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Aldehydes, ketones, esters, acids, alcohols, butadiene, tetrahydrofuran, toluene, benzoic acid, terephthalic acid

HAZARDOUS POLYMERIZATION: Not Applicable

CONDITIONS TO AVOID: To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature.

## 11. TOXICOLOGICAL INFORMATION

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TOXICOLOGICAL INFORMATION: No data – In solid state, this material is not considered as being harmful to human health.

## 12. ECOLOGICAL INFORMATION

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ECOLOGICAL INFORMATION: No data – This material does not harm the environment, but is not biodegradable.

## 13. DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHOD: Dispose of contents/containers in accordance with local, regional, national and international regulations.

## 14. TRANSPORT INFORMATION

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U.S. DEPARTMENT OF TRANSPORTATION  
Not regulated

## 15. REGULATORY INFORMATION

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### U.S. FEDERAL REGULATIONS

**TSCA (TOXIC SUBSTANCE CONTROL ACT)** : In compliance with TSCA Inventory requirements for commercial purposes.

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)** : 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 40CFR372.



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## 16. OTHER INFORMATION

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### **ADDITIONAL INFORMATION**

MEDICAL USE: CAUTION – Do not use in medical applications involving permanent implantation in the human body.

*This Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe this information to be correct but cannot guarantee its accuracy or completeness. Health and safety precaution in this data sheet may not be adequate for all individuals and or situations. It is the user's responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in the data sheet shall be construed as a permission or recommendation for the use of any product in a manner that may infringe existing patents. No warranty is made, either expressed or implied.*

