

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** MECHETEC® PEI Natural Polyether-imide (PEI)  
MECHETEC® PEI BK Black Polyether-imide (PEI)

**PRODUCT USE:** Engineering/Industrial grade thermoplastic stock shapes for subsequent machining and fabrication.

**MANUFACTURER:** Polymer Industries  
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Website: [www.polymerindustries.com](http://www.polymerindustries.com)

**PHONE NUMBERS:** (256) 657-5197

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME /CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Polyetherimide (PEI)	61128-46-9	99 - 100
Carbon Black (for MECHETEC® PEI BK only)	1333-86-4	0.1 –1.0

#### SECTION 313 SUPPLIER NOTIFICATION:

This product is not known to contain toxic chemicals listed under Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40CFR part 372.

#### HAZARDOUS INGREDIENTS:

None of these ingredients are not classified as hazardous under OSHA regulations.

### 3. HEALTH HAZARDS IDENTIFICATION

#### ACUTE OR IMMEDIATE EFFECTS/ROUTES OF EXPOSURE:

**SKIN:** Seek medical attention if rash or burn occurs.  
**EYES:** Contact with powder or dust may cause mechanical irritation.  
**INHALATION:** Shapes are not considered an inhalation hazard.  
**INGESTION:** Not a probable route of exposure.

**LONG TERM/DELAYED EFFECTS:** None Known.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None Known.

#### CHRONIC/CARCINOGENICITY:

**NTP:** Not tested.  
**OSHA:** Not regulated.  
**IARC:** Not listed.

### 3. HEALTH HAZARDS IDENTIFICATION (continued)

**MEDICAL RESTRICTIONS:** There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

**NOTE:** The International Agency for Research of Cancer (IARC) has evaluated carbon black, which is contained in MECHETEC® PEI BK products, and found it to be possible carcinogenic to humans (group 2b). The carbon black in this product is wetted by the polymer system, and therefore, presents minimal likelihood of exposure under normal conditions of handling and machining.

### 4. FIRST AID MEASURES

**SKIN:** If molten polymer contacts skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical attention for thermal burns.

**EYES:** In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician if symptoms persist.

**INHALATION:** If exposure to fumes from overheating, move to fresh air. consult a physician if symptoms persist.

### 5. FIRE FIGHTING MEASURES

**AUTOIGNITION TEMPERATURE:** 538 C (1000 °F), estimated.

**CONDITIONS OF FLAMMABILITY:** Requires a continuous flame source to ignite.

**HAZARDOUS PRODUCTS OF COMBUSTION:**

Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen cyanide and hydrocarbon fragments.

**EXTINGUISHING MEDIA:** Water spray and foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition.

**SPECIAL FIRE FIGHTING INSTRUCTIONS / PRECAUTIONS:**

Fire fighters and others exposed to products of combustion should wear full protective clothing including self – contained, breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.

### 6. ACCIDENTAL RELEASE MEASURES

**SPILL OR RELEASE:** Clean up by vacuuming or sweeping to prevent falls.

### 7. HANDLING AND STORAGE

**HANDLING:** Open containers only in well-ventilated area.

**STORAGE:** Dry storage. Keep containers closed to prevent contamination.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**VENTILATION:** Local exhaust at processing equipment to keep particulates below 15 mg/m<sup>3</sup>, the OSHA limits for nuisance dusts. Grinding and machining of parts should be reviewed to assure that particulate levels are kept below recommended standards.

### PROTECTIVE EQUIPMENT:

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

**EYE:** Safety glasses are recommended to prevent particulate from entering eyes while grinding or machining.

**RESPIRATOR:** None under normal processing, if ventilation is adequate.

**EXPOSURE GUIDELINES:** Grinding and machining of parts should be reviewed to assure that particulate levels are kept below recommended standards. This material may contain carbon black (MECHETEC® PEI BK). See the exposure limits below:

<u>INGREDIENT</u>	<u>AGENCY</u>	<u>VALUE</u>
PARTICULATES	PEL (OSHA)	15 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable dust
CARBON BLACK	OSHA PEL ACGIH TLV	3.5 mg/m <sup>3</sup> 3.5 mg/m <sup>3</sup>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Stock shape may be rods or plates of different sizes. Amber, dark brown, or black (MECHETEC® PEI BK) color.

**ODOR:** Slight or no odor.

**MELTING POINT:** This product does not exhibit a sharp melting point, but softens gradually over a wide temperature range.

**SOLUBILITY IN WATER:** Insoluble

**SPECIFIC GRAVITY:** 1.27

**PERCENT VOLATILES:** Negligible.

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable at normal temperatures and storage conditions.

**CONDITIONS TO AVOID:** None known for shapes.

**MATERIALS TO AVOID:** Not reactive.

## 11. TOXICOLOGICAL INFORMATION

**CHRONIC TOXICITY:** MECHETEC® PEI and MECHETEC® PEI BK extruded shapes are harmless.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:**

There are no known human health effects aggravated by exposure to this product.

## 12. ECOLOGICAL INFORMATION

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

## 13. DISPOSAL CONSIDERATION

**WASTE DISPOSAL:** Preferred options for disposal are: recycling, incineration with energy recovery, and landfill. Treatment and disposal must be in accordance with federal, state and local regulations.

## 14. TRANSPORT INFORMATION

**DOT HAZARD CLASS:** Not regulated.

**SHIPPING NAME:** Not regulated.

## 15. REGULATORY INFORMATION

**SECTION 313 SUPPLIER NOTIFICATION (SARA TITLE III-TOXIC CHEMICALS LIST):**

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 40 CFR372.

**TSCA INVENTORY STATUS:**

In compliance with TSCA inventory requirements for commercial purposes.

**STATE REGULATIONS:**

**STATE RIGHT TO KNOW LAWS:**

No substances on the state hazardous list, for the states indicated below, are used in the manufacture of products on this MSDS, 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 MSDS contain no such substances except for those specifically listed below:

**PENNSYLVANIA:**

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.

**CALIFORNIA PROPOSITION 65:**

Substances known to the state of California to cause cancer: Carbon Black (MECHETEC® PEI BK).  
Substances known to the state of California to cause birth defects or other reproductive harm: None Known.

**15. REGULATORY INFORMATION (continued)**

**STATE REGULATIONS (continued):**

**NEW JERSEY:** Substances on the New Jersey workplace hazardous substance list present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens, or teratogens): None Known.

**HMIS RATING**

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>REACTIVITY</b>	<b>0</b>
<b>PPE</b>	<b>A</b>

**16. OTHER INFORMATION**

**PREPARED BY:** Technical Team  
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**REVISION DATE:** **December 01, 2017**  
**SUPERCEDES REVISION DATED:** **Rev. 5 May 18, 2015**  
**REVISION SUMMARY:** Updated MECHETEC product brand name from previous UNITEM name and information.

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**END OF SDS**