



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Celazole[®] PBI Stock Shapes
PRODUCT DESCRIPTION: Various sizes of rod, plate, and tubular bars.
PRODUCT USE: Stock Shapes for subsequent machining and fabrication.
MANUFACTURER: Polymics, Ltd.
2215 High Tech Road
State College, PA 16803
Website: www.polymics.com
PRODUCT INFORMATION: (814)357-5860 (Monday – Friday, 8:30 am – 5:00 pm)
EMERGENCY TELEPHONE: (800) 424-9300 (CHEMTREC) (24 hours)

2. COMPOSITION INFORMATION AND INGREDIENTS

<u>Ingredient/Chemical Name</u>	<u>CAS #</u>	<u>Percent</u>
Poly[2,2'-(m-phenylene)]5,5'-bibenzimidazole	25928-81-8	100

TSCA INVENTORY STATUS:

All reportable ingredients are listed in the TSCA chemical substance inventory.

HAZARDOUS INGREDIENTS:

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, 40CFR372, or 29CFR1910.1200.

3. HEALTH HAZARDS IDENTIFICATION:

EMERGENCY ACTIONS: This product poses few or no unusual hazards in an emergency situation.

FIRE/EXPLOSION RISK: Although PBI does not burn in air, it begins to decompose above 750°F.

ENVIRONMENTAL RISK: There is no indication that this product causes any adverse impact on the environment.

ACUTE OR IMMEDIATE EFFECTS/ROUTES OF EXPOSURE:

INGESTION: Not a probably route of exposure

SKIN AND EYES: Mechanical irritation can develop after contact with powder or dust.

INHALATION: Shapes are not considered an inhalation hazard. Machining may generate dust/particulates that may produce slight transitory upper respiratory tract irritation.

LONG TERM/DELAYED EFFECTS: None Known

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None Known

4. FIRST AID MEASURES:

- SKIN:** Obtain medical attention for mechanical irritation that develops as a result of contact with dust or particles.
- EYES:** For contact with dust or particulates, immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician if redness, itching, or burning sensation develops.
- INHALATION:** If exposed to fumes from overheating and breathing becomes difficult, move to fresh air and give oxygen if needed. Consult a physician if symptoms persist.

5. FIRE FIGHTING MEASURES:

- FLASHPOINT:** PBI will not burn or melt.
- HAZARDOUS PRODUCTS OF COMBUSTION:**
Decomposition products may include carbon monoxide, carbon dioxide, and nitrogen oxides.
- EXTINGUISHING MEDIA:**
PBI does not burn. Use extinguishing media appropriate for surrounding materials and decomposition products.
- FIRE FIGHTING INSTRUCTIONS:**
Fire fighters and others exposed to decomposition products should wear protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES:

- CLEAN UP PROCEDURES:**
To prevent falls, vacuum or sweep up material and place in a container for disposal.

7. HANDLING AND STORAGE:

- HANDLING:** Personal hygiene measures such as washing hands after working with these products are recommended.
- STORAGE:** Dry storage. Keep containers closed to prevent contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

- ENGINEERING CONTROLS:**
Local ventilation exhaust at grinding and machining equipment to keep particulates below 15 mg/m³, the OSHA limit for nuisance dusts.
- PROTECTIVE EQUIPMENT:**
Eye protection is advisable for all industrial operations. NIOSH/MSHA approved respirators should be used if nuisance dust is generated.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Stock shapes are dark brown to black in color.

ODOR: Essentially odorless.

MELTING POINT: None. Does not melt.

SOLUBILITY IN WATER: Insoluble.

VOLATILE CONTENT: None.

SPECIFIC GRAVITY: 1.28-1.32

10. STABILITY AND REACTIVITY:

CHEMICAL STABILITY: Stable at room temperatures and storage conditions.

CONDITIONS TO AVOID: None known.

MATERIALS TO AVOID: Degraded by concentrated acids and bases.

11. TOXICOLOGICAL INFORMATION:

CHRONIC TOXICITY:

Toxicological testing has shown PBI polymer to be essentially innocuous. Inhalation studies with rats using fine PBI particles produced no adverse effects.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: None known.

CARCINOGENICITY:

This product is not listed by NTP, IARC, ACGIH, or OSHA as a carcinogen.

12. ECOLOGICAL INFORMATION:

AQUATIC TOXICITY: Expected to be low based on insolubility in water.

13. DISPOSAL CONSIDERATIONS:

SPILL OR RELEASE: Clean up by vacuuming or wet sweeping to minimize dust exposure.

WASTE DISPOSAL: Not a hazardous waste. May be land filled.

14. TRANSPORTATION INFORMATION:

DOT HAZARD CLASS: Not regulated. Not a hazardous material.

SHIPPING NAME: Not regulated. Not a hazardous material.

15. REGULATORY INFORMATION:

STATE REGULATIONS:

With the exceptions indicated, for the states listed below, no substances on the state hazardous list are used in the manufacture of products referenced on this MSDS. 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: **None known.**

U.S. FEDERAL REGULATIONS:

Toxic Substances Control Act (TSCA) Inventory Status – 40CFR710: **Listed.**

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 40CFR372.

16. OTHER INFORMATION:

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The information set forth here has been gathered from standard reference materials and/or supplier test data and is, to the best knowledge and belief of Polymics, Ltd. accurate and reliable. Such information is offered solely for the users consideration, investigation, and verification and it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones that exist. The user has the sole responsibility to determine the suitability of the material for any use and the manner of use contemplated and must meet all applicable safety and health standards. With respect to the use of such information or the use of the specific material identified here in combination with any other material or process, Polymics, Ltd. makes no warranties expressed or implied and therefore assumes no responsibility.

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