

1. Product and company identification

Commercial product name: **CELAZOLE® PBI**

Company (manufacturer): Quadrant EPP Belgium NV
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2. Composition and information on ingredients

This product is a **chemical substance**.

Chemical characterisation (eventually with synonyms): Polybenzimidazole (Poly[2,2-(m-phenylene)-5,5-bi-benzimidazole])

Chemical structure: PBI



CAS Nr. ('Chemical Abstract Service Registry Number'): 25928-81-8

3. Hazards identification

Most important hazards: No critical hazards for man and environment in case of normal storing, handling and usage.

Specific hazards: Not applicable

4. First-aid measures

Inhalation: In case the plastic burns and combustion gases are inhaled, immediately leave the room and get medical help.

Skin contact: In case molten material comes in contact with the skin, the skin needs to be rinsed thoroughly with cold water. Do not try to remove the molten material. Get medical assistance for the removal of the tacky material and care of the burn.

5. Fire-fighting measures

Suitable extinguishing media: water, foam, dry chemical, CO₂.

Extinguishing media which must not be used for safety reasons: None.

Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases: See section 10.

Special protective equipment for fire-fighters:
 Firemen should wear self-contained breathing apparatus and protective clothing to prevent contact with skin and/or eyes. If exposed to combustion fumes in a high concentration, bring the victim into fresh air. If molten material contacts skin, cool rapidly with cold water and obtain medical attention for removal of adhering material and treatment of the burn.

6. Accidental release measures

- Personal precautions:** Not applicable
- Environmental precautions:** See section 12 & 13
- Methods for cleaning up:** See section 13

7. Handling and storage

- Handling:**
- Technical measures:** Not applicable
 - Precautions:** Not applicable
 - Safe handling advice:** During machining of the stock shapes, evacuate swarf to prevent slipping or tripping hazard
- Storage:**
- Technical measures:** Not applicable
 - Safe storage conditions:** Inert under normal storage conditions
 - Incompatible products:** Not applicable
 - Safe packaging materials:** Not applicable

8. Exposure controls / personal protection

- Engineering measures to minimize worker exposure:** None.
- Personal protection:**
- Respiratory protection:** None (except when the product burns - cfr. section 4 & 10).
 - Hand protection:** Gloves in case of frequent contact with warm material.
 - Eye protection:** Safety goggles during machining.
- Industrial hygiene:** Follow good standard industrial practice. No special precautions.

9. Physical and chemical properties

- | | | |
|-----------------------------------|--|---------------------|
| Appearance: | Form: Stock shapes (plate, rod and tube)
Colour: Black | ACCORDING TO |
| Odour: | No special odour | |
| Change in physical state: | Boiling point/boiling range: Not applicable
Glass transition temperature: 425°C | |
| Flash point: | Not applicable | |
| Vapour pressure: | Not applicable | |
| Self ignition temperature: | Not applicable | ASTM D 1929 |
| pH: | Not applicable | |
| Density (at 23°C): | 1.30 g/cm ³ | ISO 1183 |
| Solubility in water: | Negligible | |
| Thermal decomposition: | 500°C | |

10. Stability and reactivity

- Stability:** In normal circumstances, the plastic and its chips are stable.
- Conditions to avoid:** High heating rates should be avoided when approaching the temperature of 500°C. Temperatures above the thermal decomposition temperature (see section 9).
- Hazardous decomposition products:** The main products formed in case of overheating or combustion are apart from harmless H₂O and CO₂, mainly CO (depending on the amount of available environmental oxygen).

11. Toxicological information

- Acute toxicity:** This material is not considered as being harmful to human health.
- Local effects:** Not applicable

12. Ecological information

This material does not harm the environment but is not biologically degradable.

13. Disposal considerations

- Residual waste:** When recycling is impossible, incineration or landfill. Disposal methods must conform to local or other government regulations. This product does not contain cadmium pigments or cadmium stabilizers.
- Contaminated packaging:** Not applicable

14. Transport information

- International regulations:** Not applicable

15. Regulatory information

Classification and labelling according to the relevant EU-directives is not required.

16. Other information

Read the product information brochures before using Quadrant EPP materials.

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