

1. Chemical Product and Company Identification

Polytek Development Corp., 55 Hilton St., Easton, PA 18042, 610/559-8620

Product Name: **POLYFOAM R-2, R-5 AND R-8 RIGID CASTING FOAM PART A**

Chemical Family: Polymeric MDI

2. Hazardous Constituents

<u>Ingredient/CAS #</u>	<u>Exposure Limits</u>
Polymethylene polyphenyl isocyanate (contains	ACGIH TLV 0.005 ppm TWA
Methylene bis(phenylisocyanate) (MDI), CAS# 101-68-8)	OSHA PEL 0.02 ppm (Ceiling)

3. Health Hazards

PRIMARY ROUTE(S) OF ENTRY: Inhalation, skin or eye contact

EYE: May cause moderate eye irritation. May cause slight transient corneal injury.

SKIN: Prolonged exposure may cause skin irritation, staining, or sensitization. Skin contact may cause skin or respiratory sensitization.

INGESTION: Oral toxicity is low. No hazards expected from swallowing very small amounts.

INHALATION: At room temp., vapors are minimal due to low volatility. May cause respiratory irritation. May cause allergic respiratory response (sensitization) in susceptible individuals. For sensitized individuals, exposure may cause asthma-like symptoms (coughing, difficulty breathing, and tightness in the chest).

CHRONIC EFFECTS: Repeated overexposure to MDI may cause respiratory and dermal sensitization. Long-term overexposure to MDI may result in impaired lung function.

CARCINOGENICITY: Rats exposed to MDI aerosol for their lifetime developed lung tumors.

4. First Aid Measures

EYE CONTACT: Flush with water immediately for 15 minutes. Seek medical attention.

SKIN CONTACT: Wash with soap and plenty of water (preferably warm water).

INHALATION: Remove to fresh air. Treat symptoms. Seek medical attention.

INGESTION: Seek medical attention. Do not induce vomiting unless so directed by a physician.

5. Fire Fighting Measures

FLASH POINT: > 400 °F (PMCC, ASTM D93)

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foams, or water fog or fine spray.

HAZARDOUS COMBUSTION PRODUCTS: May include MDI vapor, nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide, carbon dioxide, and unidentified toxic and irritating compounds.

OTHER INFORMATION: Firefighters wear SCBA and full-body protective suit. Solid stream of water into hot product may cause violent steam generation or eruption. Dense smoke is formed when product burns. Use water to cool hot containers.

6. Accidental Release Measures

Clear non-emergency personnel from the area. Extinguish sources of ignition. Put on protective equipment (see Section 8). Contain spill to minimize environmental contamination. Absorb spilled material with an inert absorbent. Collect and containerize material. Do not seal containers of spill residue since carbon dioxide is generated upon contact with moisture and dangerous pressure buildup can occur. Neutralize contaminated floor area with a mixture of water (90%), ammonia (3-

8%) and detergent (2%). Clean floor before material reacts with moisture and forms a difficult to remove rubber.

7. Handling and Storage

HANDLING: Avoid breathing vapor. Use in well ventilated area. Avoid contact with eyes, skin and clothing. Dispose of contaminated clothing and leather items such as watch bands shoes and belts. Do not eat, drink or smoke in work area. Wash hands after handling. See Section 8.

STORAGE: Store indoors at temperatures >75°F and <105°F. Store in original, unopened container. Protect from atmospheric moisture and water, since MDI reacts with water to form CO₂ leading to potentially dangerous pressure build up in sealed containers.**8. Exposure Controls/Personal Protection**

ENGINEERING CONTROLS: Provide general and/or local exhaust to maintain airborne concentrations below exposure limits (see Section 2).

PERSONAL PROTECTIVE EQUIPMENT: Chemical splash goggles, protective clothing, and impervious rubber gloves are recommended.

RESPIRATORY PROTECTION: During normal use with good ventilation, respiratory protection is not normally needed. In an emergency use a supplied-air respirator, or, if unavailable, a respirator equipped with organic vapor cartridges.

9. Physical Characteristics

APPEARANCE: Brown liquid

VAPOR PRESSURE: <1x10⁻⁵ mm Hg @ 25°C

ODOR: Slightly musty

SPECIFIC GRAVITY: 1.24 @ 20°C

BOILING POINT: >400°F

SOLUBILITY IN WATER: Reacts to form CO₂**10. Stability and Reactivity**

CONDITIONS TO AVOID: Moisture and temp's <75°F and >95°F to ensure product integrity.

INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with water, acids, bases, alcohols, strong oxidizers, and some metals (e.g., aluminum, brass, copper). Reaction with water generates carbon dioxide, and results in heat and pressure buildup in closed systems.

HAZARDOUS DECOMPOSITION PRODUCTS: Possibly isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide.

11. Regulatory and Other Information

COMMUNITY RIGHT-TO-KNOW: This product contains the following Section 313 ingredient:

<u>Ingredient</u>	<u>CAS #</u>	<u>Weight %</u>
Methylene bis(phenylisocyanate) (MDI)	101-68-8	<45

DISPOSAL: Do not dispose of on the ground, or into sewer system or any body of water. This product is not a RCRA hazardous waste (per 40 CFR 261). Upon reacting with Part B or exposure to moisture, product forms an inert, non-hazardous solid.

TRANSPORT: Not a hazardous material for shipping based on *United Nations Recommendations for the Transport of Dangerous Goods* and 49 CFR Part 171.

EMERGENCY SHIPPING INFORMATION: Call CHEMTREC, 800/424-9300.

EUROPEAN CLASSIFICATION: Xn, Harmful, R20-36/37/38-42/43, S26-28-38-45

REVISION INDICATOR: Combined all Rigid Foam products on same MSDS. Also, minor changes throughout.

DISCLAIMER: The information contained herein is considered accurate; however, Polytek makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.