

1. Chemical Product and Company Identification

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

Product Name: **PolyFoam F-5 Flexible Casting Foam Part A**

Chemical Family: Methylene bis(phenyl isocyanate)

2. Hazardous Constituents

Ingredient/CAS #Methylene bis(phenylisocyanate) (MDI),
CAS# 101-68-8, and other isomersExposure LimitsACGIH TLV 0.005 ppm TWA
OSHA PEL 0.02 ppm (Ceiling)
UK EH40 OEL for isocyanates 0.02 mg/m³
TWA; 0.07 mg/m³ STEL

Butyl benzyl phthalate

None

3. Health Hazards

PRIMARY ROUTE(S) OF ENTRY:
EYE:Inhalation, skin or eye contact
May cause moderate eye irritation. May cause very slight transient corneal injury.

SKIN:

Prolonged exposure may cause skin irritation, staining, or sensitization. Skin contact may cause skin or respiratory sensitization. Single oral dose toxicity is low. No hazards expected from ingesting very small amounts.

INGESTION:

INHALATION:

At room temp., vapors are minimal. Vapors or aerosols (e.g., generated during heating or spraying) may cause respiratory irritation. May cause respiratory sensitization in susceptible individuals. For individuals sensitized to MDI, exposure may result in allergic respiratory reactions (e.g., coughing, difficulty breathing).

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:

> 350 °F (estimated)

EXTINGUISHING MEDIA:

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

HAZARDOUS COMBUSTION PRODUCTS:

May include MDI vapor, nitrogen oxides, isocyanates, 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. Don protective equipment. Contain spill to minimize environmental contamination. Absorb spilled material with an inert absorbent. Collect and containerize material. Do not seal containers 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 in the air 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. 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 for exposure limits).

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: Yellow liquid.

ODOR: Slightly fruity.

BOILING POINT: 410 °F

VAPOR PRESSURE: 0.0003 mm Hg @ 25 °C

SPECIFIC GRAVITY: 1.2 @ 20 °C

SOLUBILITY IN WATER: Insoluble, forms 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

SARA SECTION 313: This product contains the following Section 313 ingredient:

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

DISPOSAL: Upon disposal, this product is not a RCRA hazardous waste (per 40 CFR 261). Upon exposure to moisture, product forms an inert, non-hazardous solid.

11. Regulatory and Other Information (Cont.)

TRANSPORT:

55-gal drum quantities are RQ, Environmentally hazardous substance, liquid, n.o.s. (butyl benzyl phthalate), 9, UN3082, PG III, Marine Pollutant. Smaller quantities sold by Polytek are not regulated in U.S. but are regulated by IMO.

HMIS RATINGS:

Health=2*; Flammability-- 1; Reactivity--I; PPE=C

EUROPEAN CLASSIFICATION:

Harmful, R20-36/37/38-42, S26-28-38-45.

EMERGENCY SHIPPING INFORMATION:

Call CHEMTREC, 800/424-9300.

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.

1. Chemical Product and Company Identification

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

Product Name: **PolyFoam F-5 Flexible Casting Foam Part B**

Chemical Family: Polyol

2. Hazardous Constituents

<u>Ingredient/CAS#</u>	<u>Exposure Limits</u>
Polyether Polyol	None established
Proprietary copolymer	None established

3. Health Hazards

PRIMARY ROUTE(S) OF ENTRY:	Skin or eye contact
EYE:	May cause eye irritation.
SKIN:	May cause skin irritation.
INGESTION:	May cause gastric disturbances.
INHALATION:	May result in respiratory tract irritation.
CARCINOGENICITY:	Not designated as a carcinogen by NTP, IARC, or OSHA.
CHRONIC EFFECTS:	None known

4. First Aid Measures

EYE CONTACT:	Flush with water for 15 minutes. Seek medical attention.
SKIN CONTACT:	Wipe off. Wash with soap and plenty of warm water. Seek medical attention if irritation develops.
INHALATION:	Remove to fresh air. Treat symptoms. Seek medical attention.
INGESTION:	Seek medical attention.

5. Fire Fighting Measures

FLASH POINT:	> 400°F (estimated)
EXTINGUISHING MEDIA:	Carbon dioxide, dry chemical, alcohol foam, or water fog.
HAZARDOUS COMBUSTION PRODUCTS:	Likely to include carbon monoxide, carbon dioxide, nitrogen oxides, and unidentified toxic and irritating compounds.
OTHER INFORMATION:	Firefighters wear protective gear and self-contained breathing apparatus (SCBA).

6. Accidental Release Measures

Clear non-emergency personnel from the area. Remove sources of ignition. Contain spill to minimize environmental contamination. Absorb spilled material with non-reactive absorbent such as sawdust, vermiculite, or sand. Collect and containerize spill material. Dispose of in accordance with federal, state and local regulations.

7. Handling and Storage

HANDLING:	Avoid contact with eyes, skin and clothing. Use in adequately ventilated area. Do not eat, drink or smoke in work area. Wash hands after handling. See also Section 8 of MSDS.
STORAGE:	Store at room temperature in original container tightly closed. Avoid excessive temperatures (hot or cold).

8. Exposure Controls/Personal Protection

ENGINEERING CONTROLS:	Provide general and/or local exhaust to minimize airborne concentrations.
PERSONAL PROTECTIVE EQUIPMENT:	Safety glasses or chemical splash goggles, chemically resistant gloves (e.g., nitrile), and protective clothing.
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:	Off-white liquid.
VAPOR PRESSURE:	Negligible.
ODOR:	Slight.
SOLUBILITY IN WATER:	Negligible.
BOILING POINT:	No data.
SPECIFIC GRAVITY:	1.1 @ 71°F

10. Stability and Reactivity

CONDITIONS TO AVOID:	Avoid heat (>80°F) and moisture to protect product integrity.
INCOMPATIBILITY WITH OTHER MATERIALS:	Oxidizers, isocyanates, and acids.
HAZARDOUS DECOMPOSITION PRODUCTS:	Potentially oxides of carbon, nitrogen oxides, organic acids, and other unidentified irritating or toxic compounds

11. Regulatory and Other Information

SARA SECTION 313:	This product does not contain compounds above the de minimis reporting levels subject to SARA Section 313.
RCRA:	Upon disposal, this product is not a listed or characteristic RCRA hazardous waste as defined in 40 CFR 261. Dispose of in accordance with state and local regulations.
DOT:	Not a hazardous material for shipping purposes based on United Nations Recommendations for the Transport of Dangerous Goods and 49 CFR Part 171.
HMIS RATINGS:	Health=I; Flammability=I; Reactivity--O; PPE=C.
EUROPEAN CLASSIFICATION:	No Danger Symbol applies.
EMERGENCY SHIPPING INFORMATION:	Call CHEMTREC, 800/424-9300.

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