

## 1. Identification

Product Identifier: **Tough-Cast 75D Side "A"**  
 Use: For Industrial/Professional use only.  
 Manufacturer: Polytek Development Corp.  
 55 Hilton Street, Easton, PA 108042  
 Phone Number: 269-488-4000 (8 a.m. to 4 p.m. EST)  
 Emergency Phone: CHEMTREC 800-424-9300 or  
 +1 (703) 527-3887  
 E-mail: [sds@polytek.com](mailto:sds@polytek.com)

## 2. Hazards Identification

### GHS Classification:

Acute Toxicity (Inhalation) – Category 3  
 Skin Irritation – Category 2  
 Eye Irritation – Category 2B  
 Respiratory Sensitization – Category 1  
 Skin Sensitization – Category 1  
 Specific Target Organ Toxicity Single Exposure – Category 3  
 Specific Target Organ Toxicity Repeat Exposure – Category 2 (lungs)

Label Elements: Danger



### Hazard Phrases:

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H320 Causes eye irritation.  
 H331 Toxic if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H373 May cause damage to lungs through prolonged or repeated exposure by inhalation.

### Precautionary Phrases:

P260 Do not breathe fumes, vapors, mists or sprays.  
 P264 Wash thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P280 Wear protective gloves.  
 P284 In case of inadequate ventilation, wear respiratory protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P316 Get emergency medical help immediately.  
 P319 Get medical help if you feel unwell.  
 P333+P317 If skin irritation or rash occurs: Get medical help.  
 P337+P317 If eye irritation persists: Get medical help.  
 P342+P316 If experiencing respiratory symptoms: Get emergency medical help immediately.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 P501 Dispose of contents and container in accordance with local, regional and national regulations.

**Supplemental Information:** Individuals sensitized to isocyanates should discontinue use. Long-term overexposure to isocyanates may cause lung damage.

This is one part of a two-part system. Read and understand the hazard information on part B before using.

## 3. Composition/Information on Ingredients

Chemical Name	CAS #	%
4,4'-methylenediphenyl diisocyanate (MDI)	101-68-8	70-90
Exact concentrations are withheld as trade secret. Other ingredients are not classified as health, physical or environmental hazards, or are present below cut-off/concentrations limits.		

## 4. First-Aid Measures

**Eye Contact:** Rinse thoroughly with water for at least 15 minutes, holding the eyelids open to be sure the material is washed out. Get medical attention if irritation develops or persists.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation develops or persists. Launder clothing before re-use. Discard items that cannot be decontaminated.

**Inhalation:** Do not breath vapors. If inhaled, remove person to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if you feel unwell.

**Most Important Symptoms/Effects:** Causes skin and eye irritation. Vapors may cause respiratory irritation. May cause allergic skin and/or respiratory reaction in sensitized persons. Symptoms include skin rash, wheezing, shortness of breath and other asthma symptoms. Prolonged inhalation overexposure may damage the lungs and respiratory system.

**Indication of Immediate Medical Attention/Special Treatment:** Immediate medical attention is required for asthmatic symptoms or serious inhalation exposures. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Persons sensitized to isocyanates should not use this product.

## 5. Fire-Fighting Measures

**Extinguishing Media:** Use foam, carbon dioxide, dry chemical, or water fog. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

**Specific Hazards:** Not classified as flammable or combustible. Product will burn under fire conditions. Do not allow run-off from firefighting to enter drains or waterways.

**Special Protective Equipment & Precautions for Fire-Fighters:** Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

## 6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors. Ventilate area. Caution – spill area may be slippery.

**Methods and Materials for Containment and Cleanup:** Cover with an inert absorbent material and collect into an appropriate container for disposal. Do not seal the container since CO<sub>2</sub> is generated on contact with moisture and dangerous pressure buildup can occur. Decontaminate floor area with a mixture of water plus isopropyl alcohol (20%), household ammonia (10%), and detergent (2%). Do not allow discharge to enter waterways.

## 7. Handling and Storage

**Safe Handling:** Avoid breathing vapors, aerosols and mists. Use with properly positioned local exhaust ventilation to prevent exposure. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use. Persons susceptible to skin sensitization problems or asthma allergies, chronic or recurrent respiratory disease should not use this product.

**Safe Storage:** Store indoors at temperatures between 55°F and 95°F. Store in original, unopened containers. Protect from atmospheric moisture and water since isocyanates react with water to form CO<sub>2</sub> leading to potentially dangerous pressure build up in sealed containers.

## 8. Exposure Controls/Personal Protection

### Occupational Exposure Limits:

Chemical Name	Exposure Limits
4,4'-methylenediphenyl diisocyanate	0.005 ppm TWA ACGIH TLV 0.02 ppm (C) OSHA PEL

**Ventilation:** Use with properly positioned local exhaust ventilation to prevent exposure and maintain air levels below the occupational exposure limits.

**Respiratory Protection:** If ventilation is not adequate, use an approved respirator with organic vapor cartridges or supplied air. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety goggles.

**Other Protective Measures:** Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

## 9. Physical and Chemical Properties

**Appearance:** Clear liquid

**Odor:** Mild odor

**Odor Threshold:** No data available

**pH:** Not applicable

**Melting Point/Freezing Point:** No data available

**Boiling Point:** No data available

**Flash Point:** No data available

**Evap. Rate:** No data available

**Flamm. Limits:** No data available

**Vapor Pressure:** No data available

**Vapor Density:** No data available

**Relative Density:** 1.12 @ 25°C

**Solubility:** Insoluble in water

**Partition Coefficient: n-octanol/Water:** No data available

**Auto-Ignition Temp:** No data available

**Decomposition Temp:** No data available

**Viscosity:** 1,000-1,200 cps

## 10. Stability and Reactivity

**Reactivity:** Isocyanates react with many chemicals, including alcohols and amines, and the rate of reaction increases with temperature. Reaction with water generates carbon dioxide and heat.

**Chemical Stability:** Stable under recommended conditions.

**Possibility of Hazardous Reactions:** Elevated temperatures can cause hazardous polymerization. Polymerization can be catalyzed by strong bases or water. Reaction with water generates carbon dioxide, and results in heat and pressure buildup in closed systems.

**Conditions to Avoid:** Avoid moisture and temperatures below 55°F and above 95°F to protect product integrity and prevent pressure buildup in closed containers.

**Incompatible Materials:** Avoid contact with water, acids, bases, amines, and some metals (e.g., copper and copper alloys).

**Hazardous Decomposition Products:** Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke, Hydrogen cyanide (hydrocyanic acid).

## 11. Toxicological Information

**Eye Contact:** Causes eye irritation.

**Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Inhalation:** At room temperature, vapors are minimal due to low volatility. Vapors or aerosols (e.g., generated during heating or spraying) may cause respiratory irritation and possibly pulmonary edema. May cause respiratory sensitization. For individuals sensitized to isocyanates, exposure may result in allergic respiratory reactions (e.g., coughing, wheezing, difficulty breathing).

**Ingestion:** No data available.

**Chronic Health Effects:** Repeated or prolonged exposure to isocyanates above exposure limits may cause an allergic sensitization of the respiratory tract causing an asthma-like response upon re-exposure. Repeated overexposure to isocyanates has been associated with decreased lung function. Repeated or prolonged dermal contact with this product may cause allergic skin sensitization in some individuals.

**Acute Toxicity Values:** For 4,4'-methylenediphenyl diisocyanate (CAS 101-68-8):

Oral LD<sub>50</sub> (rat): >5,000 mg/kg

Dermal LD<sub>50</sub> (rabbit): >9,400 mg/kg

Inhalation LC<sub>50</sub> (rat): 0.49 mg/L 4 hr (dust/mist)

**Respiratory Sensitization:** Components are classified as respiratory sensitizers.

**Skin Sensitization:** Components are classified as skin sensitizers.

**Germ Cell Mutagenicity:** Components are not classified as mutagens.

**Carcinogenicity:** Components are not classified as carcinogens.

**Reproductive Toxicity:** Components are not classified as reproductive toxins.

**Specific Target Organ Toxicity:** May cause respiratory irritation, drowsiness or dizziness.

## 12. Ecological Information

**Ecotoxicity:** No data available. Do not release into waterways.

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** Isocyanates are not expected to bioaccumulate.

**Mobility in Soil:** No data available.

## 13. Disposal Considerations

Dispose according to local, state and federal regulations. Upon exposure to moisture, product forms an inert, non-hazardous solid.

## 14. Transport Information

Not regulated for transport in any mode.

**Emergency Shipping Information:** Call CHEMTREC, 800-424-9300 or +1-703-527-3887

## 15. Regulatory Information

### U.S. FEDERAL REGULATIONS:

**CERCLA 103 Reportable Quantity:** RQ for MDI is 5000 lb. Some states have more stringent requirements. Report spills in accordance with local and state regulations.

**SARA TITLE III Section 311/312:** Acute Health, Chronic Health  
**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

4,4'-methylenediphenyl diisocyanate (CAS 101-68-8) 70-90%

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on TSCA.

### STATE REGULATIONS:

**California Proposition 65:** This product does not contain chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

## 16. Other Information

**Training Advice:** All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions:** This product is intended for industrial use only.

**SDS Revision Notes:** GHS Format, November 13, 2019; Reviewed and updated: December 15, 2021

**Disclaimer:** The information contained herein is considered accurate; however, Polytek® Development Corp. 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. 35Identification

Product Identifier: **Tough-Cast 75D Side "B"**  
 Use: For Industrial/Professional use only.  
 Manufacturer: Polytek Development Corp.  
 55 Hilton Street, Easton, PA 18042  
 Phone Number: 269-488-4000 (8am to 4pm EST)  
 Emergency Phone: CHEMTREC 800-424-9300 or  
 +1 (703) 527-3887  
 E-mail: sds@polytek.com

## 2. Hazards Identification

**GHS Classification:** Not hazardous per 29 CFR 1910.1200.

**Label Elements:** No GHS label required.

**Supplemental Information:** May cause mild skin and eye irritation.  
 Read and understand the hazard information on Part A before using.

## 3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Ingredients are not classified as health and/or environmental hazards, and/or are present below cut-off/concentration limits.		

## 4. First-Aid Measures

**Eye Contact:** Rinse thoroughly with water holding the eyelids open to be sure the material is washed out. Get medical attention if irritation develops and persists.

**Skin Contact:** Wash contact area thoroughly with soap and water. Get medical attention if irritation develops and persists.

**Inhalation:** If breathing is difficult, remove person to fresh air. Get medical attention if you feel unwell.

**Ingestion:** Do not induce vomiting. Get medical attention if you feel unwell.

**Most Important Symptoms/Effects:** None known.

**Indication of Immediate Medical Attention/Special Treatment:** Not expected to be required.

## 5. Fire-Fighting Measures

**Extinguishing Media:** Carbon dioxide, dry chemical, foam.

**Specific Hazards:** Not classified as flammable or combustible.

**Special Protective Equipment and Precautions for Fire-Fighters:**  
 Wear SCBA & full-body protective suit.

## 6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Clear unnecessary, unprotected personnel from the area. Wear SCBA and protective clothing.

**Methods and Materials for Containment and Cleanup:** Contain spill and prevent/minimize release to the environment. Collect with inert absorbent and containerize material for disposal.

## 7. Handling and Storage

**Safe Handling:** Do not breathe vapors. Do not smoke, eat, or drink when using this product.

**Safe Storage:** Keep container tightly closed in a dry, well-ventilated area.

## 8. Exposure Controls/Personal Protection

**Occupational Exposure Limits:** None established.

**Ventilation:** Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Respiratory Protection:** If needed, a NIOSH-approved respirator with organic vapor cartridges may be used. Respirator selection and use

should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.  
**Skin Protection:** Wear impervious clothing and gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety glasses/goggles.

**Other Protective Measures:** An eye wash facility and washing facility should be available in the work area. Wash hands at the end of each work shift and before eating, smoking or using the toilet. Follow applicable regulations and good Industrial Hygiene practice.

## 9. Physical and Chemical Properties

**Appearance:** Liquid

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** No data available

**Melting Point:** No data available

**Boiling Point:** Not data available

**Flash Point:** No data available

**Evaporation Rate:** No data available

**Flammable Limits:** No data available

**Vapor Pressure:** No data available

**Vapor Density:** No data available

**Relative Density:** No data available

**Solubility:** No data available

**Partition Coefficient: n-octanol/Water:** No data available

**Auto-Ignition Temp:** No data available

**Decomposition Temp:** No data available

**Viscosity:** No data available

## 10. Stability and Reactivity

**Reactivity:** Not normally reactive.

**Chemical Stability:** Stable under recommended conditions.

**Possibility of Hazardous Reactions:** No data available

**Conditions to Avoid:** No data available

**Incompatible Materials:** Avoid strong acids, strong bases, and strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), aldehydes, ketones, burning produces noxious and toxic fumes.

## 11. Toxicological Information

**Eye Contact:** May cause mild irritation.

**Skin Contact:** May cause mild irritation.

**Inhalation:** May cause mild respiratory irritation.

**Ingestion:** No data available.

**Chronic Health Effects:** No data available.

**Acute Toxicity Values:** Not acutely hazardous.

**Germ Cell Mutagenicity:** No data available

**Carcinogenicity:** Relevant components are not listed as known or suspected carcinogens by NTP, IARC or OSHA.

**Reproductive Toxicity:** Relevant components are not known or suspected reproductive toxins.

**Specific Target Organ Toxicity:** No data available.

## 12. Ecological Information

**Ecotoxicity:** No data available. Avoid release to the environment.

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** Not expected to migrate.

### 13. Disposal Considerations

Dispose according to local, regional and national regulations.

### 14. Transport Information

Not regulated for transport in any mode.

**Emergency Shipping Information:** Call CHEMTREC, 800-424-9300 or +1-703-527-3887

### 15. Regulatory Information

#### U.S. FEDERAL REGULATIONS:

**CERCLA 103 Reportable Quantity:** Not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

#### SARA TITLE III:

**Hazard Category for Section 311/312:** Chronic Health Hazard

**Section 313 Toxic Chemicals:** Contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All components are listed on TSCA.

#### STATE REGULATIONS:

**California Proposition 65:** This product does not contain chemicals known to the State of California to cause cancer and/or reproductive harm. [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### 16. Other Information

**Training Advice:** All personnel using/handling these products should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions:** Intended for industrial or professional use only.

**SDS Revision Notes:** GHS format: December 15, 2021; Reviewed and updated: April 18, 2022

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