

## 1. Identification

Product Identifier: **Polygel® 35 Brush-On Liquid Rubber Part A**  
**Polygel® Spray 35 Liquid Rubber Part A**  
**Polygel® Spray 50 Liquid Rubber Part A**

Product Code(s): PG35A, PG35SPRAYA, PG50SPRAYA

Use: Component for Polyurethane Mold Rubber.  
For Industrial/Professional use only.

Manufacturer: Polytek Development Corp.  
55 Hilton St., Easton, PA 18042 USA

Phone Number: +1 610-559-8620 (9 a.m. to 5 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 4  
 Skin Irritation Category 2  
 Eye Irritation Category 2  
 Respiratory Sensitization Category 1  
 Skin Sensitization Category 1  
 Carcinogenicity Category 2  
 Specific Target Organ Toxicity Single Exposure Category 3 (Respiratory Irritation)  
 Specific Target Organ Toxicity Repeated Exposure Category 2 (Lungs)

**Label Elements:** Danger!

### Hazard Phrases

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.  
 H351 Suspected of causing cancer.  
 H373 May cause damage to lungs and respiratory system through prolonged or repeated exposure.



### Precautionary Phrases

P202 Do not handle until all safety precautions have been read and understood.  
 P260 Do not breathe vapors/spray.  
 P264 Wash thoroughly after handling.  
 P280 Wear protective gloves, protective clothing, eye protection, and face protection.  
 P285 In case of inadequate ventilation, wear respiratory protection.  
 P362 Take off contaminated clothing and wash before reuse.  
 P302+352 IF ON SKIN: Wash with plenty of soap and water.  
 P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P304+340 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
 P308+313 IF exposed or concerned: Get medical attention.  
 P403+233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents and container in accordance with local/regional/national/international regulations.

**Supplemental Information:** Individuals sensitized to isocyanates should discontinue use. Read and understand the hazard information on part B before using.

## 3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Methylene bis(phenylisocyanate) (MDI)	26447-40-5	5-20
Toluene diisocyanate (TDI)	26471-62-5	≤1
Polyether polyol-TDI prepolymer	9057-91-4	45-85

## 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 prompt medical attention.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before reuse. Discard items that cannot be decontaminated.

**Inhalation:** 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.

**Most Important Symptoms/Effects:** Causes skin and eye irritation. Vapors or mists 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.

**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 consult a physician before working with respiratory irritants or sensitizers.

## 5. Fire-Fighting Measures

**Extinguishing Media:** Use water fog, foam, carbon dioxide or dry chemical. 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.

**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. Ventilate area. Wear appropriate protective clothing to prevent eye and skin contact and respiratory protection.

**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%).

## 7. Handling and Storage

**Safe Handling:** Avoid breathing vapors or mists. Use with adequate ventilation. 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.

**Safe Storage:** Store indoors at temperatures between 55°F and 95°F (13°C and 35°C). 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:** For MDI and TDI: 0.02 ppm (C) OSAH PEL; 0.005 ppm TWA ACGIH TLV. For TDI: 0.02 ppm ACGIH.

**Ventilation:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** For hand mixing with adequate local exhaust, respiratory protection may not be needed. When spraying, wear a NIOSH-approved respirator with organic vapor cartridges. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection:** Wear impervious gloves (butyl 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 and washing facility should be available in the work area. Follow good Industrial Hygiene practices.

## 9. Physical and Chemical Properties

**Appearance:** Liquid, color varies

**Odor:** Pungent, slightly sweet

**Odor Threshold:** Not determined

**pH:** Not applicable

**Melting Point:** No data available

**Boiling Point:** No data available

**Flash Point:** >350°F (177°C) estimated

**Evap. Rate:** No data available

**Flamm. Limits:** No data available

**Vapor Pressure:** <0.1 mm Hg @ 25°C

**Vapor Density:** No data available

**Relative Density:** 1.1 @ 25°C

**Solubility:** Insoluble in water

**Partition Coefficient: n-octanol/Water:** Reacts with water

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

**Decomposition Temp:** No data available

**Viscosity:** 500-5,000 cP

## 10. Stability and Reactivity

**Reactivity:** Isocyanates react with many materials 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 (13°C) and above 95°F (35°C) to protect product integrity.

**Incompatible Materials:** Avoid water, acids, bases, alcohols, strong oxidizers, and some metals (e.g., aluminum, zinc, brass, tin, copper).

**Hazardous Decomposition Products:** Possibly isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide.

## 11. Toxicological Information

**Eye Contact:** May cause moderate irritation. May cause temporary corneal injury.

**Skin Contact:** May cause irritation. May stain skin. Repeated skin contact may cause an allergic skin reaction. Animal studies indicate that skin contact with isocyanates may elicit respiratory sensitization.

**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, or respiratory sensitization. For individuals sensitized to isocyanates, exposure may result in allergic respiratory reactions (e.g., coughing, wheezing, difficulty breathing).

**Ingestion:** Single oral dose toxicity is low. May cause adverse gastrointestinal effects.

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

**Acute Toxicity Values:**

For MDI: Oral rat LD50 >10,000 mg/kg; Skin rabbit LD50 >9,400 mg/kg; Inhalation rat LC50 0.49 mg/L/4 hr (aerosol)

For TDI: Oral rat LD50 >2,000 mg/kg; Skin rabbit LD50 >9,400 mg/kg; Inhalation rat LC50 0.48 mg/L/1 hr (aerosol)

**Specific Target Organ Toxicity:** Single Exposure: May cause respiratory irritation. Repeat Exposure: Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

**Carcinogenicity:** For MDI: Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) for their lifetime. MDI is not designated as a carcinogen by NTP, IARC, or OSHA. For TDI: TDI is an IARC 2B carcinogen and classified as reasonably anticipated to be a human carcinogen by NTP.

## 12. Ecological Information

Product reacts with water to form insoluble polyureas. Movement in the aquatic and terrestrial environment is expected to be limited. They are not readily biodegradable and are not expected to bioaccumulate.

## 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 by any mode.

EMERGENCY SHIPPING: CHEMTREC, 800-424-9300 or +1-703-527-3887

## 15. Regulatory Information

**U.S. FEDERAL REGULATIONS:**

**CERCLA 103 Reportable Quantity:** Package sizes sold by Polytek do not contain RQs. 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:

TDI, 26471-62-5 ≤1%

MDI, 26447-40-5 (contains 101-68-8/9016-87-9) 5-20%

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

**STATE REGULATIONS:**

**California Proposition 65: WARNING:** This product can expose you to chemicals including Toluene diisocyanate (TDI), which is known to the State of California to cause cancer. [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## 16. Other Information

**Training Advice:** Train personnel using this product in proper chemical handling, engineering controls and protective equipment.

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

**SDS Revision Notes:** Removed 2 products, updated Prop 65, November 21, 2018; New GHS format.

**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.