Polytek Development Corp.

# Safety Data Sheet

## 1. Identification of the Preparation and Company

| | |
|---|---|
| Trade Name: | **Poly PT Flex Liquid Rubber Part A** |
| Product Code: | PTFLEX20A, PTFLEX50A, PTFLEX60A, PTFLEX70A, PTFLEX85A |
| Use of Preparation: | Part A of two-part liquid polyurethane rubber |
| Chemical Class: | Isocyanate |
| Company | Polytek Development Corp.<br>55 Hilton St.<br>Easton, PA 18042 USA<br>Telephone: 610-559-8620<br>csalisbury@polytek.com |
| EU Only Representative: | Stewardship Solutions<br>Green Lowe Farm, Shawclough Rd<br>Waterfoot, Rossendale, Lancs.BB4 9SA, UK<br>Telephone: (+44) 01706 220901 |
| Emergency Telephone: | 610-559-8620 (9 am to 5 pm EST) |

## 2. Hazards Identification

HAZARD CLASSIFICATION: Harmful, Xn
PRIMARY ROUTE(S) OF ENTRY: Inhalation, ingestion, skin or eye contact
ACUTE SYMPTOMS: Vapour causes irritation of respiratory system.
Causes eye and skin irritation.
CHRONIC SYMPTOMS: Long-term exposure to vapour may cause respiratory sensitization. Repeated skin contact may cause respiratory or dermal sensitization.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Bronchitis, asthma, and other respiratory complaints
EXPLOSION HAZARD: Reaction with water liberates carbon dioxide. Pressure buildup in a sealed container may cause explosion.

## 3. Composition/Information on Ingredients

| Chemical Name | CAS Number/ EINECS Number | % of Product | Hazard Classification |
|---|---|---|---|
| Diphenylmethane diisocyanate, contains 4,4'-methylenediphenyl diisocyanate | 26447-40-5 (Contains 101-68-8/ 202-966-0) | 10-35 | Xn - R20; Xi - R36/37/38, R42/43 |
| Polymeric MDI | 39310-05-9 | 2-15 | Xn: R42 |
| Poly (oxyalkylene) polyol | Not Dangerous according to 67/548/EEC | | |
| Aliphatic acid ester | Not Dangerous according to 67/548/EEC | | |

## 4. First-Aid Measures

EYE CONTACT: Flush with copious amount of water. Seek medical attention.
SKIN CONTACT: Wipe off. Wash with industrial cleanser or soap and warm water.
INHALATION: Remove to fresh air. Perform artificial respiration if necessary. Qualified medical personnel may administer oxygen. Seek medical attention.
INGESTION: Seek medical attention. Do not induce vomiting unless so directed by a medical professional.

## 5. Fire-Fighting Measures

FLASH POINT: > 200 °C (estimated)
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, or water fog or fine spray.
THERMAL DECOMPOSITION PRODUCTS: May include carbon monoxide, carbon dioxide, nitrogen oxides, and hydrogen cyanide.
OTHER INFORMATION: Firefighters wear full-face positive pressure breathing apparatus and full chemical protective suit. Violent steam generation or eruption may occur upon application of water stream to hot product.

## 6. Accidental Release Measures

Clear non-emergency personnel from the area. Avoid contact with sources of ignition. Spill response personnel wear protective clothing to prevent inhalation and eye and skin contact (see Section 8). Contain spill to minimize environmental contamination. Absorb spilled material with an absorbent such as sand or earth. 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. Decontaminate floor area with a mixture of water, ammonia, and isopropyl alcohol. Clean floor before material reacts with moisture in the air and forms a difficult to remove rubber. Dispose of contaminated materials as hazardous waste in accordance with the Environmental Protection Act of 1990.

## 7. Handling and Storage

HANDLING: Avoid breathing vapor. Use in adequately ventilated area. Avoid contact with eyes, skin and clothing. 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 a well-ventilated area. Do not store above 40°C. Store in tightly closed container and protect from atmospheric moisture.

## 8. Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Provide general and/or local exhaust to maintain airborne concentrations below exposure limits.
MAXIMUM AIRBORNE EXPOSURE LIMITS:

| | | |
|---|---|---|
| ACGIH | 8-Hour TWA | 0.005 ppm |
| UK | 8-Hour TWA: | 0.02 mg/m$^3$ SEN (for -NCO, Isocyanates; EH 40/2002) |
| UK | 15-Min. STEL: | 0.07 mg/m$^3$ SEN (for -NCO, Isocyanates; EH 40/2002) |

PERSONAL PROTECTIVE EQUIPMENT: Protective equipment should conform to the Personal Protective Equipment at Work Regulations.
RESPIRATORY PROTECTION: In the absence of good ventilation, use a respirator equipped with organic vapor cartridges.
HAND: Wear protective gloves against chemicals (i.e., butyl, nitrile or latex rubber) are recommended.
EYES: Wear goggles or safety glasses.
SKIN: When handling large quantities, wear chemical protective coveralls and/or apron.

## 9. Physical & Chemical Properties

APPEARANCE: Clear yellow liquid
ODOUR: Slightly fruity
pH: Not determined
BOILING POINT: Not determined

MELTING POINT: Not applicable
FLASH POINT: >200 °C (estimated)
AUTOFLAMMABILITY: No data available
EXPLOSIVE PROPERTIES: Not explosive
OXIDISING PROPERTIES: Not an oxidizer
VAPOUR PRESSURE: <0.0001 mm Hg @ 20 °C
RELATIVE VAPOUR DENSITY (Air=1): 8.5 (estimated, raw material SDS)
SPECIFIC GRAVITY: 1.0-1.1 @ 25°C
SOLUBILITY IN WATER: Insoluble in water, reacts with evolution of $CO_2$
SOLUBILITY IN SOLVENT: Soluble in alcohols (but avoid since reaction occurs)

## 10. Stability and Reactivity

CHEMICAL STABILITY: Stable under recommended storage conditions.
CONDITIONS TO AVOID: Temperatures <24 °C and >40 °C. Avoid moisture.
INCOMPATIBILITIES: Avoid contact with water, acids, bases, alcohols, oxidizers, metal compounds, and amines. Reaction with water generates carbon dioxide, and results in heat and pressure buildup in closed systems.
HAZARDOUS DECOMPOSITION PRODUCTS: Depends on temperature, air supply and presence of other materials (potentially isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide).

## 11. Toxicological Information

SKIN: Irritant. Contact may cause respiratory or dermal sensitization.
EYES: Irritant
INHALATION: Irritant. Risk of sensitisation.
INGESTION: Low oral toxicity, but ingesting large amounts may induce severe gastrointestinal effects.
CHRONIC EFFECTS: Repeated or prolonged exposure to isocyanates by inhalation or skin contact may cause an allergic sensitisation of the respiratory tract causing an asthma-like response upon re-exposure. Repeated overexposure to isocyanates has been associated with lung damage. Repeated or prolonged dermal contact with this product may cause allergic skin sensitisation in some individuals.

## 12. Ecological Information

ECOTOXICITY: No formal data is available; but product should not be allowed to enter water courses based on data available for concentrated isocyanate solutions.

## 13. Disposal Considerations

Dispose according to local and national regulations

## 14. Transport Information

NOT A HAZARDOUS MATERIAL FOR SHIPPING PURPOSES BASED ON *UNITED NATIONS RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS.*
UN NUMBER: Not applicable;
SHIPPING NAME: Not applicable

## 15. Regulatory Information

HAZARD SYMBOL: Harmful, Xn; Irritant, Xi
RISK PHRASES:
R20 - Harmful by inhalation
R36/37/38 - Irritating to eyes, respiratory system, and skin
R42/43 - May cause sensitisation by inhalation and skin contact
SAFETY PHRASES:
S24/25 – Avoid contact with the skin and eyes
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28 -After contact with skin, wash immediately with water or industrial hand cleaner
S38 - In case of insufficient ventilation, wear suitable respiratory equipment
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
OTHER PHRASES:
Keep containers tightly closed when not in use
Protect from ingress of moisture
Contains isocyanates
LABELLING: Hazard determining component(s) for labelling: Diphenylmethane diisocyanate
REACH: Substances in this formulation for which export is >1 tonne/yr to EU were pre-registered with ECHA prior to Dec. 1, 2008.

## 16. Other Information

Hazard symbols and R-phrases for hazardous components in section 3:
Xn Harmful; Xi, Irritant
R20: Harmful by inhalation.
R36/37/38: Irritating to eyes, respiratory system and skin.
R42/43: May cause sensitization by inhalation and skin contact.

TRAINING ADVICE: All personnel using/handling this product should be trained in proper chemical handling and the need for and use of control measures including protective equipment.

RECOMMENDED USES AND RESTRICTIONS: This product is intended for industrial use only. Further details of intended applications and guidance relating to technical aspects of use are contained in the relevant Technical Bulletin/Advice sheet.

REFERENCES:
Manufacturers' SDSs and Technical Bulletins

**REVISION INDICATOR**: First EU issue.
**DISCLAIMER**: The information contained herein has been compiled from data that is, to the best of our knowledge, valid at the date of issue. However, as the conditions under which the product is used are not under our control, the user is responsible to ensure that a risk assessment is undertaken in accordance with current legislation and that all necessary precautions are employed.