

POLYTEK-POLY 75 SERIES PART A

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Trade Name: **Polytek-Poly 75 Series Part A**

Chemical Name: Isocyanate Prepolymer containing Toluene 2,4-Di-Isocyanate and Toluene 2,6-Di-Isocyanate

Chemical Class: Isocyanate

Product Code: 75A

Synonym(s): TDI Prepolymer

CAS Number(s): Mixture containing 26471-62-5

EEC Number: Mixture containing 209-544-5

UK Approved Supply List Number: 615-006-00-4

W.P. Notcutt Ltd
Homewood Farm, Newark Lane,
RIPLEY
Surrey GU23 6DJ
TEL: 01483 223311
FAX: 01483 479594

2. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>% of Product</u>	<u>Hazard Classification</u>	<u>Risk Phrases</u>
Toluene 2,4-Di-Isocyanate and Toluene 2,6-Di-Isocyanate (80/20)	~2%	T; Toxic	R23, 40, 42/43 (See Sect. 15)

3. HAZARDS IDENTIFICATION

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

ACUTE SYMPTOMS: Contact may cause eye and skin irritation. Ingestion may cause gastrointestinal discomfort and nausea, lethargy, or diarrhea. Vapour may cause irritation of respiratory system. For individuals sensitized to TDI, exposure may result in allergic respiratory reactions (e.g., coughing, difficulty breathing).

CHRONIC SYMPTOMS: Repeated overexposure to TDI may cause respiratory and dermal sensitization. TDI is listed as a carcinogen by IARC (2B) and NTP. TDI has been shown to cause cancer in lab animals when administered orally. Carcinogenicity via inhalation (the most likely means of industrial exposure) has not been proven.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Bronchitis, asthma, and other respiratory complaints

FIRE HAZARD: Product supports combustion.

EXPLOSION HAZARD: Reaction with water liberates carbon dioxide. Pressure buildup in a sealed container may cause explosion.

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: >132°C (estimated)
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, or water 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 a sorbent 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 AND PERSONAL PROTECTION

ENGINEERING CONTROLS:	Provide general and/or local exhaust to maintain airborne concentrations below exposure limits.
MAXIMUM AIRBORNE EXPOSURE LIMITS:	
8-Hour TWA (EH 40/2002):	0.02 mg/m ³ (Isocyanates)
15-Min. STEL:	0.07 mg/m ³ (Isocyanates)
PERSONAL PROTECTIVE EQUIPMENT:	Protective equipment should conform to the Personal Protective Equipment at Work Regulations 1992.
RESPIRATORY PROTECTION:	In the absence of good ventilation, use a respirator equipped with organic vapor cartridges. Respirators should conform to the Standard EN405 FFA1.
HAND:	Chemical protective gloves conforming with EN374 are recommended.
EYES:	Eye protection conforming with BS2092 or prEN166 is recommended.

9. PHYSICAL CHARACTERISTICS

APPEARANCE:	Clear to amber liquid.
ODOUR:	Slightly sweet acrid odour
pH:	Not determined
BOILING POINT:	Not determined
MELTING POINT:	Not Applicable
FLASH POINT:	>132°C (estimated)
AUTOFLAMMABILITY:	No data available
EXPLOSIVE PROPERTIES:	No data available
OXIDISING PROPERTIES:	No data available
VAPOUR PRESSURE:	<5Pa @ 20°C
RELATIVE VAPOUR DENSITY (Air=1):	6
SPECIFIC GRAVITY:	1.0 @ 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 >40°C. Avoid moisture.
INCOMPATIBILITIES:	Avoid contact with water, acids, bases, alcohols, 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
EYES:	Irritant
INHALATION:	Irritant. Risk of sensitisation.
INGESTION:	Ingesting large amounts may induce severe gastrointestinal effects.
CHRONIC EFFECTS:	Repeated or prolonged exposure to isocyanates above exposure limits 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.

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.
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13. DISPOSAL CONSIDERATIONS

HAZARDS:	Toxic fumes may be generated upon incineration.
DISPOSAL:	Wastes arising from industrial premises are subject to The Environmental Protection (Duty of Care) 1991. Can be landfilled or incinerated in compliance with these requirements.
PACKAGING:	All packaging is subject to the same requirements as above.

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
DANGER SIGN:	Not applicable
CLASSIFICATION:	Not applicable
SUBSIDIARY HAZARD:	Not applicable
PACKING GROUP:	Not applicable
EMERGENCY ACTION CODE:	Not applicable

15. REGULATORY INFORMATION

HAZARD SYMBOL:	T
INDICATION OF DANGER:	Toxic
RISK PHRASES:	
	R23 - Toxic by inhalation.
	R40 – Limited evidence of carcinogenic effect.
	R42/43 - May cause sensitisation by inhalation and skin contact.

SAFETY PHRASES:

S23 – Do not breathe vapor.

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

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 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:

HSE. Approved Supply List (Seventh Edition). (CHIP3, 2002)

HSE. Approved classification and labeling guide (Fifth edition).

HSE. Guidance Note EH 40/2002. Occupational Exposure Limits 2002

Restructured ADR; European Agreement Concerning the International Carriage of Dangerous Goods by Road, United Nations, Applicable as of 1 July 2001

Personal Protective Equipment at Work Regulations 1992

Manufacturer's Technical Bulletin

REVISION INDICATOR: Revised classification from Harmful to Toxic, based on changes in CHIP3. Made additional minor changes.

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.

POLYTEK – POLY 75 SERIES PART B

75-45 PART B, 75-59 PART B, 75-60 PART B, 75-70 PART B

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Trade Name: **Polytek 75-45 Part B, 75-59 Part B, 75-60 Part B, and 75-70 Part B**

Chemical Name: Polyol blend
Chemical Class: Polyol
Product Code: 75-45 B, 75-59 B, 75-60 B, and 75-70 B
Synonym(s): Polyol blend
CAS Number(s): Mixture
EEC Number: Mixture
UK Approved Supply List Number: Non allocated

W.P. Notcutt Ltd
Homewood Farm, Newark Lane,
RIPLEY
Surrey GU23 6DJ
TEL: 01483 223311
FAX: 01483 479594

2. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>% of Product</u>	<u>Hazard Classification</u>	<u>Risk Phrases</u>
Contains no dangerous substances per CHIP3, 2002			

3. HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF ENTRY: Skin or eye contact, and ingestion
ACUTE SYMPTOMS: May cause skin or eye irritation.
CHRONIC SYMPTOMS: In rare instances, long term skin contact may cause irritation and sensitization.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Possibly conjunctivitis and other eye complaints. Possibly dermatitis, eczema and other skin complaints.
FIRE HAZARD: Product supports combustion.
EXPLOSION HAZARD: Not applicable.

4. FIRST AID MEASURES

EYE CONTACT: Flush with copious amount of water. Seek medical attention if irritation persists.
SKIN CONTACT: Wash with industrial cleanser or soap and warm water.
INHALATION: Remove to fresh air. Seek medical attention if symptoms persist.
INGESTION: Do not induce vomiting. Seek medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT:	>100°C (using Tag open cup)
EXTINGUISHING MEDIA:	Carbon dioxide, dry powder or foam preferred. Water spray may be used.
THERMAL DECOMPOSITION PRODUCTS:	May include carbon monoxide, carbon dioxide, nitrogen oxides, and other unidentified compounds.
PROTECTIVE EQUIPMENT:	Firefighters wear full-face positive pressure breathing apparatus and full chemical protective suit.

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. Dispose of contaminated materials in accordance with the Environmental Protection Act of 1990.

7. HANDLING AND STORAGE

HANDLING:	Use in adequately ventilated area. Avoid skin and eye contact. 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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS:	Provide general and/or local exhaust to maintain airborne concentrations below exposure limits.
MAXIMUM AIRBORNE EXPOSURE LIMITS:	None Apply
PERSONAL PROTECTIVE EQUIPMENT:	Protective equipment should conform to the Personal Protective Equipment at Work Regulations 1992.
RESPIRATORY PROTECTION:	In the absence of good ventilation, use a respirator equipped with organic vapor cartridges. Respirators should conform to the Standard EN405 FFA1.
HAND:	Chemical protective gloves conforming to prEN374 are recommended.
EYES:	Eye protection conforming to BS2092 or prEN166 is recommended.

9. PHYSICAL CHARACTERISTICS

APPEARANCE:	Clear to translucent liquid. Colour may vary from grey to blue, amber or black.
ODOUR:	Slightly sweet acrid odour
pH:	Not determined
BOILING POINT:	Not determined

MELTING POINT:	Not determined
FLASH POINT:	>100°C (Tag open cup)
AUTOFLAMMABILITY:	No data available
EXPLOSIVE PROPERTIES:	No data available
OXIDISING PROPERTIES:	No data available
VAPOR PRESSURE:	Nil @ 20°C
RELATIVE VAPOUR DENSITY (Air=1):	Not applicable
SPECIFIC GRAVITY:	1.0 @ 25°C
SOLUBILITY IN WATER:	Slight
SOLUBILITY IN SOLVENT:	Soluble in most low boiling solvents

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under recommended storage conditions.
CONDITIONS TO AVOID:	Temperatures >40°C.
INCOMPATIBILITIES:	Strong oxidising agents, strong acids.
HAZARDOUS DECOMPOSITION PRODUCTS:	May include carbon monoxide, carbon dioxide, nitrogen oxides, and other unidentified compounds.

11. TOXICOLOGICAL INFORMATION

SKIN:	Possible irritant
EYES:	Possible irritant
INHALATION:	Not expected to be a route of exposure due to low volatility.
INGESTION:	Ingesting large amounts may induce severe gastrointestinal effects.
OTHER CHRONIC EFFECTS:	None.
LONG TERM EFFECTS:	None.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:	No formal data is available.
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13. DISPOSAL CONSIDERATIONS

HAZARDS:	None.
DISPOSAL:	Wastes arising from industrial premises are subject to The Environmental Protection (Duty of Care) 1991. Can be landfilled or incinerated in compliance with these requirements.
PACKAGING:	All packaging is subject to the same requirements as above.

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
DANGER SIGN:	Not applicable
CLASSIFICATION:	Not applicable

SUBSIDIARY HAZARD: Not applicable
PACKING GROUP: Not applicable
EMERGENCY ACTION CODE: Not applicable

15. REGULATORY INFORMATION

HAZARD SYMBOL: None
INDICATION OF DANGER: None
RISK PHRASES: None
SAFETY PHRASES: None
OTHER PHRASES: Keep containers tightly closed when not in use.
See information supplied by the manufacturer.

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 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:

H.S.E. Approved Supply List (Seventh Edition). (CHIP3, 2002)
H.S.E. Approved classification and labeling guide (Fifth edition).
H.S.E. Guidance Note EH 40/2002. Occupational Exposure Limits 2002
Restructured ADR; European Agreement Concerning the International Carriage of Dangerous Goods by Road, United Nations, Applicable as of 1 July 2001
Personal Protective Equipment at Work Regulations 1992
Manufacturer's Technical Bulletin

REVISION INDICATOR: Revised to include a different group of products and to reflect minor formulation modifications.

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.