

**SAFETY DATA SHEET****Section 1: IDENTIFICATION**

**Product Name:** HYDRO SEAL

**Manufacturer:**

TK PRODUCTS  
11400 W 47TH STREET  
MINNETONKA, MN 55343

**Emergency Telephone Number:** CHEMTREC 1-800-424-9300

**Section 2: HAZARD(S) IDENTIFICATION****Section 2: Hazards Identification****GHS Classifications****Health:**

Acute Toxicity (Inhalation), Category 2  
Skin Irritation, Category 2  
Eye Irritation, Category 2  
Respiratory Sensitization, Category 1  
Skin Sensitization, Category 1  
Target organ toxicity single exposure, Category 3  
Target organ toxicity repeated exposure, Category 2  
Reproductive Toxicity, Category 1B

**GHS Label**

Health hazard



Exclamation mark

**Signal Word:** Danger.

**Hazard Statements**

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.  
H360: May damage fertility or the unborn child.  
H373: May cause damage to respiratory system through prolonged or repeated exposure.

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### Precautionary Statements

#### Prevention:

- P260: Do not breathe mist, vapors or spray.
- P264: Wash hands thoroughly after handling.
- P280: Wear protective gloves, protective clothing, eye protection and face protection.
- P285: In case of inadequate ventilation wear respiratory protection.

#### Response

- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical attention.
- P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P342+P311: If experiencing respiratory symptoms: Call a poison center or physician.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical attention.
- P308+P313: IF exposed or concerned: Get medical advice.

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	% (weight)	Product Identifier
TDI Prepolymer	40-70	CAS No. 71343-01-6
Diphenylmethane 4,4'-diisocyanate	15-25	CAS No. 101-68-8
Polymeric diphenylmethane diisocyanate	10-20	CAS No. 9016-87-9
Toluene diisocyanate, mixed isomers	< 4	CAS No. 26471-62-5

### Section 4: FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with plenty of water. Remove contact lenses, if present. Seek medical attention if irritation persists.

**Skin Contact:** Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Seek medical attention if irritation or rash occurs.

**Ingestion:** If person is conscious, wash out mouth with water. Do not induce vomiting unless instructed to do so by a poison center or physician.

**Inhalation:** Move person to fresh air. Seek medical attention if symptoms of respiratory distress occur. Symptoms can be delayed for several hours.

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### Section 5: FIRE-FIGHTING MEASURES

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

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides, isocyanates and trace amounts of hydrogen cyanide.

**Explosion Hazards:** Water contamination produces carbon dioxide gas. This may cause pressurization or explosion of containers.

**Fire Fighting Procedures:** Standard.

**Fire Fighting Equipment:** Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Protection:** Wear protective equipment listed in Section 8.

**Spill Procedures:** Isolate the hazard and deny entry to unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled material. Small spills: Absorb with dry chemical absorbent, earth, sand or any other inert material. Allow to stand uncovered 48 hours before closing container. Large spills: Create a dike or trench to contain product. Follow same procedure as for a small spill.

**Environmental Precautions and Cleanup Methods:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Clean spill area with a decontamination solution. Suggested formulation: Sodium carbonate (5-10%), liquid detergent (1-2%), water (88-94%). Alternate formulation: Concentrated ammonia (3-8%), liquid detergent (1-2%), water (90-96%). Ensure adequate ventilation to prevent overexposure of ammonia.

### Section 7: HANDLING AND STORAGE

**Handling:** Do not get in eyes, on skin or on clothing. Wash hands before eating, drinking or smoking. Do not breathe vapors or mists. Use only with adequate ventilation. Keep container closed when not in use. Do not reseal if contaminated. Keep away from heat and flame.

**Storage:** Store in tightly closed containers in cool, dry and well-ventilated area away from heat or sources of ignition. Keep out of direct sunlight.

**Storage Temperature:** 4.4°C – 32.2°C (40°F - 90°F).

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## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## Section 8: Exposure Controls/Personal Protection

## Exposure limits:

Component	CAS No.	OSHA/PEL	ACGIH/TLV
Diphenylmethane 4,4'-diisocyanate	101-68-8	0.02 ppm (Ceiling) 0.20 mg/m <sup>3</sup> (Ceiling)	0.005 ppm 0.051 mg/m <sup>3</sup>
Toluene diisocyanate, mixed isomers	26471-62-5	0.005 ppm	0.02 ppm (STEL)

**Engineering Controls:** Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminants.

**Eye/Face Protection:** Wear a face shield and chemical safety glasses or goggles.

**Skin Protection:** Wear impervious gloves. Cover exposed skin.

**Respiratory Protection:** For airborne exposure above the exposure limit(s), wear a NIOSH approved air-purifying respirator equipped with organic vapor cartridges. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber liquid
Odor	Slightly musty
Odor Threshold	No data
Melting Point	No data
Freezing Point	No data
Boiling Point	No data
Flash Point (Closed Cup)	> 93.3°C (200°F)
Evaporation Rate	No data
Flammable Limits In Air	No data
Vapor Pressure	< 0.017 mmHg at 25°C (77°F)
Vapor Density (air = 1)	Heavier than air.
Solubility in water	Insoluble, reacts with water
Autoignition Temperature	No data
Decomposition Temperature	No data
Specific Gravity (water = 1)	1.12 – 1.14 at 25°C (77°F)
Viscosity (centipoise)	700 - 900 at 25°C (77°F)

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### Section 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Hazardous Polymerization:** Can be caused by elevated temperatures.

**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, isocyanates and trace amounts of hydrogen cyanide.

**Incompatibilities:** This product will react with any materials containing active hydrogens such as water, alcohol, amines, bases and acids. The reaction with water is very slow under 50°C (122°F), but is accelerated at higher temperatures.

### Section 11: TOXICOLOGICAL INFORMATION

**Acute:**

Component	Oral LD <sub>50</sub> (rat)	Dermal LD <sub>50</sub> (rabbit)	Inhalation LC <sub>50</sub> (rat)
Diphenylmethane 4,4'-diisocyanate	> 10000 mg/kg	> 9400 mg/kg	0.49 mg/L/4h (respirable aerosol)
Toluene diisocyanate, mixed isomers	5110 mg/kg	> 9400 mg/kg	0.48 mg/L/1h (respirable aerosol)

**Carcinogenicity:**

IARC: TDI is listed as a substance that is possibly carcinogenic to humans.

NTP: TDI is listed as a substance that is reasonably anticipated to be a human carcinogen.

OSHA: Not regulated as a carcinogen.

### Section 12: ECOLOGICAL INFORMATION

**Ecotoxicological Information:**

MDI: LC<sub>50</sub> (zebra fish) > 500 mg/L/96h. EC<sub>50</sub> (Daphnia magna) > 500 mg/L/24h.

TDI: LC<sub>50</sub> (zebra fish) > 100 mg/L/96h. EC<sub>50</sub> (Daphnia magna) 12.5 mg/L/48h.

### Section 13: DISPOSAL CONSIDERATIONS

**Disposal Method:** Dispose in accordance with local, state, provincial or national regulations.

**Empty Container:** Decontaminate and pass to an approved drum recycler or destroy.

**RCRA/EPA Waste Information:** If discarded in its purchased form, this material is not a RCRA hazardous waste.

**General Comments:** The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured into drains, sewers or waterways.

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### Section 14: TRANSPORT INFORMATION

**U.S. DOT:** Not regulated when shipped below regulated quantity (RQ).

**ICAO/IATA:** Not regulated when shipped below regulated quantity (RQ).

**IMO/IMDG:** Not regulated when shipped below regulated quantity (RQ).

### Section 15: REGULATORY INFORMATION

United States

#### SARA Title III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories: Acute, Chronic, Reactive.

313 Reportable Components:

Component	CAS No.
Diphenylmethane 4,4'-diisocyanate (Category Diisocyanate Compounds)	101-68-8
Polymeric diphenylmethane diisocyanate (Category Diisocyanate Compounds)	9016-87-9
Toluene diisocyanate, mixed isomers	26471-62-5

#### CERCLA (Comprehensive Environmental Response and Liability Act)

Component	RQ (lbs)
Diphenylmethane 4,4'-diisocyanate	5000
Toluene diisocyanate, mixed isomers	100

**TSCA (Toxic Substances Control Act):** All components are on TSCA inventory.

**RCRA Status:** If discarded in its purchased form, this material is not a RCRA hazardous waste.

**National Response Center:** Any spill or release to the environment above the RQ must be reported to the National Response Center (800-424-8802).

### Section 16: OTHER INFORMATION

Date Issued: March 17, 2008

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**SAFETY DATA SHEET****Abbreviations and Acronyms:**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
EC <sub>50</sub>	Median effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC <sub>50</sub>	Lethal concentration to 50% of exposed laboratory animals
LD <sub>50</sub>	Lethal dose to 50% of exposed laboratory animals
TWA	Time-weighted average
TLV	Threshold limit value
NIOSH	US National Institute of Occupational Safety and Health
NE	Not established
NTP	US National Toxicology Program
OEL	Occupational exposure limit
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
RQ	Reportable quantity
STEL	Short term exposure limit
U.S. DOT	United States Department of Transportation