

## URESHELL & URESHELL HARDENER

Material Safety Data Sheets

### URESHELL

#### Section 1 • IDENTIFIERS

Product Class: Polyurethane Adhesive Resin

Product Use: Adhesive Resin

Product Codes: EXP71

Chemtrec: 800-424-9300

Effective Date: 2002

HMIS

Hazard Rating: Health 1, Fire 1, Reactivity 0

#### Section 2 • COMPOSITION

Product contains no hazardous ingredients, or they are below reportable levels.

#### Section 3 • HAZARDS IDENTIFICATION

Emergency Overview: Beige-colored liquid. Non-flammable. Slippery in the wet state.

Routes of Entry:

Inhalation	No
Skin	Yes
Eye	Yes
Ingestion	Yes

Inhalation: No reported incidents of adverse health effects resulting from inhalation of vapors at room temperature.

Ingestion: No hazard expected in normal industrial use. Do not eat or drink or smoke around chemicals. Follow good hygiene practices.

Skin: Prolonged or repeated skin contact can cause irritation.

Eye: Mildly irritating to eyes.

Medical Conditions Aggravated by Exposure: None currently known.

Carcinogenicity: NTP: No  
IARC: No  
OSHA: No

#### Section 4 • FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel.

Ingestion: Call poison control center immediately. Follow their specific instructions. Do not induce vomiting.

Skin: Wash with soap and water. Contact a physician if irritation develops or persists.

Eye: Hold eyelids apart and flush with plenty of water for at least 15 minutes. Seek medical attention.

#### Section 5 • FIRE-FIGHTING MEASURES

Flammability: Class (OSHA) IIIB

Flashpoint: Not applicable.

Explosive Range: Not applicable.

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires when using this product.

Hazard Combustion Products: Oxides of carbon may be released during combustion.

Fire-Fighting Procedures: Wear a NIOSH-approved, self-contained breathing apparatus.

#### Section 6 • ACCIDENTAL RELEASE MEASURES

Containment Techniques: Use inert absorbent to dike the spill. Keep away from drains.

Clean-up: If possible, pump liquid into an approved container or spread absorbent over spill and shovel (use non-sparking equipment) product/absorbent mixture into an approved container. If product has dried, scrape up and place in an approved container.

Emergency Measures: Isolate hazard area. Keep unnecessary and unprotected personnel from entering area. Wear all appropriate personal protection equipment, PPE, see Section 8.

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**Section 7 • HANDLING AND STORAGE**

Handling: Wash thoroughly after handling. Follow all MSDS/label precautions even after container is emptied. Containers may retain product residues and vapors. Avoid prolonged or repeated contact with the skin.

Storage: Keep from freezing. Store at temperatures between 50°–90°F.

Precaution: Keep out of the reach of children.

**Section 8 • EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Engineering Controls: Maintain standard plant ventilation.

Other: Facilities storing or utilizing any chemical should be equipped with an eyewash facility and a safety shower.

Respiratory Protection: Not expected to be necessary under normal use. Follow requirements for respiratory protection in OSHA 1910.134.

Eye Protection: Wear chemical safety glasses if splashing or misting of product may occur.

Skin Protection: Where skin contact can occur, wear impervious gloves. Products as a whole. Refer to Section 2.

**Section 9 • PHYSICAL AND CHEMICAL PROPERTIES**

Physical Form: Liquid

Appearance/Color: Beige

Odor: Mild

Solubility in Water: None

Specific Gravity: 1.70

**Section 10 • STABILITY AND REACTIVITY**

Stability: This product is stable.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong acids and bases.

Decomposition Products: Not applicable.

**Section 11 • TOXICOLOGICAL INFORMATION**

This formulation has a low order of acute and chronic toxicity by all routes of exposure. Prolonged or repeated exposure may cause skin irritation. Direct contact may cause eye irritation. Exposure to any chemical substance, including those with a low order of toxicity, should be controlled and minimized to avoid.

**Section 12 • ECOLOGICAL INFORMATION**

This formulation has not been tested for environmental effects.

**Section 13 • DISPOSAL CONSIDERATIONS**

Waste Disposal: Disposal of this product must comply with all applicable federal, state, and local regulations.

Container Disposal: Disposal of this container should comply with all applicable federal, state, and local regulations.

**Section 14 • TRANSPORTATION INFORMATION**

UN Number: NOI

UN Pack Group: n/a

UN Class: n/a

ICAO/IATA Class: Non-hazardous

IMDG Class: Non-hazardous

Shipping Name: Reactite R2032

**Section 15 • REGULATORY INFORMATION**

TSCA, Toxic Substances Control Act Inventory: All components of this product are listed on the TSCA inventory except as exempted.

**Section 16 • OTHER INFORMATION**

Disclaimer: While the information and recommendations set forth herein are believed to be accurate as of the data hereof, there is no warranty, expressed or implied, with respect thereto and all liability from reliance thereon is disclaimed.

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**URESHELL HARDENER**

## Material Safety Data Sheet

**Section 1 • IDENTIFIERS**

Product Name:	Hardner 200
Product Class:	MDI
Product Use:	Catalyst
Product Codes:	6004
Chemtrec:	800-424-9300
Effective Date:	2002
HMIS	
Hazard Rating:	Health 2, Fire 1, Reactivity 0

**Section 2 • COMPOSITION**

	CAS#	Percent
Higher Oligomers of MDI:	9016-87-9	55.00
4, 4' - diphenylmethane diisocyanate:	101-68-8	45.00

OSHA PELs and ACGIH TLVs are listed in Section 8 where applicable.

**Section 3 • HAZARDS IDENTIFICATION**

Note:	This product reacts with water, releasing carbon dioxide.
Emergency Overview	Warning: Eye and skin irritant. Potential skin and respiratory sensitizer. Contains isocyanate containing polymers. Keep out of reach of children. In the case of a spill: evacuate and ventilate the spill area, wear full protective equipment including respiratory equipment during clean-up.
Routes of Entry:	Ingestion Yes Inhalation Yes Skin: Yes Eye Yes
Inhalation:	At room temperature, vapors are minimal due to low vapor pressure. In some individuals an allergic reaction may occur. May cause respiratory sensitization in susceptible individuals. MDI concentrations below exposure guidelines may cause allergic reactions in individuals already sensitized. Symptoms may include coughing, difficult breathing, and feeling of tightness in the chest. Effects may be delayed. Impaired lung function (decreased ventilation capacity) has been associated with overexposure to isocyanates.
Ingestion:	No hazard expected in normal industrial use. Ingestion is not a likely route of exposure.

Skin: Prolonged or repeated exposure may cause skin irritation. Skin contact may result in allergic skin reactions or respiratory sensitization but is not expected to result in absorption of amounts sufficient to cause other adverse effects. Material may stick to skin causing irritation upon removal. May stain skin.

Eye: May cause slight eye irritation. Corneal injury is unlikely.

Medical Conditions Aggravated by Exposure: Respiratory conditions such as asthma.

Carcinogenicity: NTP: No  
IARC: No  
OSHA: No  
ACGIH: No

Reproductive Toxicity: In laboratory animals, MDI/polymeric MDI do not produce birth defects. Other fetal effects occurred only at doses which were toxic to the mother.

Target Organs: Eyes, skin, and respiratory tract.

**Section 4 • FIRST AID MEASURES**

Inhalation: Remove to fresh air. If not breathing, give mouth-to-mouth resuscitation. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel

Skin: Wash off with flowing water or shower. Contact physician if persistent irritation occurs.

Eye: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel. Material containing MDI may react with moisture of the eye forming thick material which may be difficult to wash from the eye.

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**Section 5 • FIRE-FIGHTING MEASURES**

Flammability:	Class (OSHA) IIIB
Flashpoint:	> 200°F Setaflash
Explosive Range:	Not applicable.
Extinguishing Media:	Carbon dioxide, dry chemical, or foam. For large-scale fires, alcohol-resistant foams are preferred if available. Water may be used as a blanket for fire extinguishment. If water is used, it should be used in a very large quantity. The reaction between water and isocyanate may be vigorous. If possible, contain fire run-off water.
Hazard Combustion Products:	When burning, product will release carbon monoxide, carbon dioxide, nitrogen oxide fumes, and isocyanate vapors.
Fire-Fighting Procedures:	Fire-fighters should use positive-pressure, self-contained breathing apparatus and full protective clothing. Down-wind personnel must be evacuated.

**Section 6 • ACCIDENTAL RELEASE MEASURES**

Containment Techniques:	Use inert absorbent to dike the spill. Keep away from drains.
Clean-up:	Major Spill: Evacuate and ventilate spill area, wear full protective equipment including respiratory equipment during cleanup. If temporary control of isocyanate vapor is required, a blanket of protein foam may be placed over the spill. Large quantities may be pumped into a closed but not sealed containers for disposal. Do not make pressure tight. Transport to a well-ventilated area (outside) and treat with neutralizing solution consisting of a mixture of water and 3–8% concentrated ammonium hydroxide or 5–10% sodium carbonate. Add about 10 parts of neutralizer per part of isocyanate with mixing. Allow to stand for 48 hours, letting evolved carbon dioxide to escape. Decontaminate floor using water/ammonia solution with 1–2% detergent, letting stand over affected area for at least 10 minutes. Cover mops and brooms used for this with plastic and dispose of properly (often by incineration).
Emergency Measures:	Isolate hazard area. Keep unnecessary and unprotected personnel from entering area. Wear all appropriate personal protection equipment, PPE, see Section 8.

**Section 7 • HANDLING AND STORAGE**

Handling:	In accordance with good manufacturing practices, good ventilation of the processing area is recommended. Gloves are recommended as product is difficult to remove from affected areas if contact with skin occurs.
Storage:	Store in tightly closed containers to protect from atmospheric moisture. Replace outage with inert nitrogen. Store at temperature of 75°–105°F.

**Section 8 • EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Occupational Exposure Limits:	The ACGIH TLV for 4, 4'-diphenylmethane diisocyanate is .005 ppm. The OSHA ceiling for 4, 4'-diphenylmethane diisocyanate is .02 ppm.
Engineering Controls:	Use local exhaust as needed to maintain occupational exposure limits.
Respiratory Protection:	Atmospheric levels should be maintained below the exposure guidelines. For emergency and other conditions where exposure guidelines may be exceeded, use an approved, positive-pressure, self-contained breathing apparatus or supplied air respirator with an auxiliary, self-contained air supply.
Eye Protection:	Chemical splash goggles (ANSI Z87.1 or approved equivalent).
Skin Protection:	Use impervious materials made of butyl or nitrile rubber where skin contact may occur.
General:	Safety shower and eye-wash station.

**Section 9 • PHYSICAL AND CHEMICAL PROPERTIES**

Physical Form:	Liquid
Appearance/Color:	Brown
Odor:	Mild
Solubility in Water:	Nil
Specific Gravity:	1.23

**Section 10 • STABILITY AND REACTIVITY**

Stability:	This product is stable.
Hazardous Polymerization:	Will not occur.

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**Section 11 • TOXICOLOGICAL INFORMATION**

Acute and chronic health effects are not expected as long as good industrial hygiene and safety precautions are followed.

**Section 12 • ECOLOGICAL INFORMATION**

This formulation has not been tested for environmental effects.

**Section 13 • DISPOSAL CONSIDERATIONS**

**Waste**

Disposal: Disposal of this product must comply with all applicable federal, state, and local regulations.

**Container**

Disposal: Disposal of this container should comply with all applicable federal, state, and local regulations.

**Section 14 • TRANSPORTATION INFORMATION**

UN Number: None  
 UN Pack Group: n/a  
 UN Class: n/a  
 ICAO/IATA Class: Non-hazardous  
 IMDG Class: Non-hazardous  
 Shipping Name: Non-hazardous

**Section 15 • REGULATORY INFORMATION**

SARA Title III  
 Section 313:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right To Know Act of 1986 and of 40 CFR 372:

	CAS#	Percent
Higher Oligomers of MDI:	9016-87-9	55.00
4, 4' - diphenylmethane diisocyanate:	101-68-8	45.00

TSCA, Toxic Substances Control Act Inventory:

All components of this product are listed on the TSCA inventory except as exempted.

Pennsylvania:

Hazardous component required to be listed at 1% or greater:  
 4, 4' -diphenylmethane diisocyanate: 101-68-8.  
 Non-hazardous components required to be listed at 3% or greater:  
 reacted urethane prepolymer, mixture.

New Jersey:

Reacted urethane prepolymer, mixture.  
 4, 4' -diphenylmethane diisocyanate, 101-68-8.

**Section 16 • OTHER INFORMATION**

Disclaimer: While the information and recommendations set forth herein are believed to be accurate as of the data hereof, there is no warranty, expressed or implied, with respect thereto and all liability from reliance thereon is disclaimed.