

Distributed by Freeman Mfg & Supply Co.  
800-321-8511 www.freemansupply.com

24-Hour Emergency Phone: (800) 328-8501

Effective Date: 8/30/05

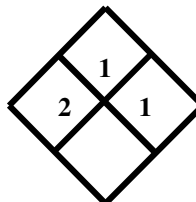
Material Safety Data Sheet

MSDS No: 6263

**1. PRODUCT IDENTIFICATION**

Trade Name: RenCast 205-3

Chemical Family: Isocyanate



NFPA RATING

Health:	2*
Flammability:	1
Reactivity:	1
Personal Protection:	

HMIS RATING

**Synonyms:**

TDT 205-3 Resin

Intended Use or Product Type: Unfilled polyurethane casting system

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS			
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	101-68-8 Common Name:	Benzene, 1,1'-Methylenebis[4-Isocyanato-MDI	0.005 ppm	NE	0.02 ppm	NE	NE	NR	NR	NR
*	64742-94-5 Common Name:	Solvent naphtha (petroleum) heavy aromatic Heavy aromatic naphtha	NE	NE	NE	NE	NE	NR	NR	NR
*	64742-95-6 Common Name:	Solvent naphtha (petroleum), light aromatic Light aromatic naphtha	NE	NE	NE	NE	TWA 50 ppm	NR	NR	NR
*	8052-41-3 Common Name:	Stoddard Solvent Aliphatic petroleum distillates	100 ppm	NE	500 ppm	NE	NE	NR	NR	NR
*	9016-87-9 Common Name:	Isocyanic Acid, Polymethylenepolyphenylene Ester Polymethylene polyphenyl isocyanate	NE	NE	NE	NE	NE	NR	NR	NR
*	95-63-6 Common Name:	Benzene, 1,2,4-trimethyl- Pseudocumene	NE	NE	NE	NE	NE	NR	NR	NR

Effective Date: 8/30/05

\* = OSHA Hazardous Ingredient

### 3. HAZARDS IDENTIFICATION

**Emergency Overview:** Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Can be harmful if inhaled.

**Primary Route(s) of Entry:** Dermal; heated product may produce inhalable vapors.

### 4. FIRST AID MEASURES

**Ingestion:** If conscious, give 2 - 4 glasses of water to drink. Do not induce vomiting. Call a physician.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

**Inhalation:** Remove to fresh air. Call a physician.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**Overexposure Effects:** Contact with liquid causes eye and skin irritation. If inhaled causes breathlessness, chest discomfort, and reduced pulmonary function. May cause allergic skin and respiratory reactions in some individuals, leading to asthma type spasms of the bronchial tubes and difficulty in breathing.

**Medical Conditions Aggravated by Exposure:** Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases, eye conditions or recurrent skin eczema or sensitization should be excluded from working with isocyanates.

**Additional Information:** Referral to a physician is recommended if there is any question about the seriousness of any injury.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** > 200°F (> 93 °C)

**Flash Point Method Used:** Estimated

**Flammable Limits in Air (Lower - % by volume):** Not established

**Flammable Limits in Air (Upper - % by volume):** Not established

**Fire Fighting Extinguishing Media:** Carbon dioxide, dry chemical, foam, water.

**Fire Fighting Equipment:** Use self-contained breathing apparatus.

**Fire and Explosion Hazards:** Decomposition and combustion products may be toxic. Avoid water contamination in closed containers or confined spaces. Carbon dioxide evolved.

### 6. ACCIDENTAL RELEASE MEASURES

Effective Date: 8/30/05

**Accidental Release Measures:** Absorb with absorbent material and place in open top container. Under good ventilation, decontaminate absorbant and spill area with a mixture of 90% water, 8% ammonia and 2% detergent (exothermic reaction). Leave ventilated 24 hours before disposal. Avoid contact.

## **7. HANDLING AND STORAGE**

**Signal Word:** Warning!

**Precautions:** Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Can be harmful if inhaled. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

**Other Handling Information:** Nuisance dust may be generated when sanding or sawing cured material.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Skin Protection:** Impervious synthetic gloves.

**Respiratory Protection:** If a person is concerned with exposure to isocyanates, an organic respirator can provide protection at less than the TLV. It is not a requirement at an exposure level less than the TLV. For exposures in excess of the TLV, an air supplied respirator would be required. Conditions that may create exposures above the TLV are spray applications, the material being strongly heated in excess of 125F before application, or the use of material in poorly ventilated areas.

**Eye Protection:** Wear splash-proof chemical goggles.

**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	Brown
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Reacts with water
<b>Vapor Pressure:</b>	Not Determined
<b>Specific Gravity:</b>	1.01 (water = 1)
<b>Boiling Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Vapor Density:</b>	> 1 (Air = 1)
<b>pH:</b>	Not Determined

**Percent Volatile:** Negligible.

## **10. STABILITY AND REACTIVITY**

**Conditions to Avoid:** Contamination with moisture and other products that react with isocyanates. Avoid prolonged heating over 160f or storing below 75f. Avoid water contamination.

**Stability:** Stable.

**Incompatibility:** Water, alcohols, strong oxidizing agents, strong bases, metal-organic compounds.

Effective Date: 8/30/05

**Hazardous Decomposition Products:** Combustion may form toxic materials. Carbon monoxide, carbon dioxide, benzene, toluene, oxides of nitrogen, hydrogen cyanide.

**Hazardous Polymerization:** May occur.

## **11. TOXICOLOGICAL INFORMATION**

**Sensitization:** Causes allergic skin and respiratory reactions.

**Skin Irritation:** Irritant.

**Eye Irritation:** Irritant.

## **12. ECOLOGICAL INFORMATION**

## **13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

## **14. TRANSPORT INFORMATION**

**DOT: Non-Bulk**

**Proper Shipping Name:** Resin compounds, N.O.I.

**Department of Transportation:** Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49 CFR 172.101 hazardous materials table.

## **15. REGULATORY INFORMATION**

### **US Federal Regulations:**

**Occupational Safety and Health Act (OSHA):** This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

**Resource Conservation and Recovery Act (RCRA):** Not specifically listed as hazardous waste under RCRA (40 CFR 261). However, it is strongly recommended that compound be treated as a hazardous waste and disposed of accordingly.

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Isocyanic Acid, Polymethylenepolyphenylene Ester

Common Name: Polymethylene polyphenyl isocyanate

Percent in Composition: 35.64 % by wt

---

**Effective Date: 8/30/05**

---

Comment:

Chemical Name: Benzene, 1,1'-Methylenebis[4-Isocyanato-

Common Name: MDI

Percent in Composition: 29.16 % by wt

Comment:

Chemical Name: Benzene, 1,2,4-trimethyl-

Common Name: Pseudocumene

Percent in Composition: 1.548 % by wt

Comment:

**TSCA Section 8(b) - Inventory Status:** All chemical components of this product are in compliance with TSCA inventory requirements.**TSCA Section 12(b) - Export Notification:** This product contains the following chemical(s) that are subject to a Section 12(b) export notification:

Chemical Name: Naphthalene

Common Name: Naphthalene

CAS Number: 91-20-3

### **State Regulations:**

**California Proposition 65:** The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins:

Chemical Name: Naphthalene

Common Name: Naphthalene

CAS Number: 91-20-3

Percent in Composition: 0.688 % by wt

Comment: Warning! This chemical is known to the State of California to cause cancer.

Chemical Name: Benzene, methyl-

Common Name: Toluene

CAS Number: 108-88-3

Percent in Composition: 0.0069 % by wt

Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

Chemical Name: Benzene

Common Name: Benzene

CAS Number: 71-43-2

Percent in Composition: 0.0009 % by wt

Comment: Warning! This chemical is known to the State of California to cause cancer and birth defects or other reproductive harm.

**Pennsylvania Right-to-Know:** The following is required composition information:

Chemical Name: Isocyanic Acid, Polymethylenepolyphenylene Ester

Common Name: Polymethylene polyphenyl isocyanate

CAS Number: 9016-87-9

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Benzene, 1,1'-Methylenebis[4-Isocyanato-

---

**Effective Date: 8/30/05**

---

Common Name: MDI  
CAS Number: 101-68-8  
Comment: Environmental Hazardous Substance

Chemical Name: Propanoic Acid, 2-Methyl-, 2,2-Dimethyl-1-(1-Methylethyl)-1,3-Propanediyl Ester  
Common Name: Trimethyl pentanediol diisobutyrate  
CAS Number: 6846-50-0  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Solvent naphtha (petroleum), light aromatic  
Common Name: Light aromatic naphtha  
CAS Number: 64742-95-6  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Solvent naphtha (petroleum) heavy aromatic  
Common Name: Heavy aromatic naphtha  
CAS Number: 64742-94-5  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Stoddard Solvent  
Common Name: Aliphatic petroleum distillates  
CAS Number: 8052-41-3  
Comment: Hazardous Substance

Chemical Name: Benzene, 1,2,4-trimethyl-  
Common Name: Pseudocumene  
CAS Number: 95-63-6  
Comment: Environmental Hazardous Substance

## **16. OTHER INFORMATION**

<b>MSDS No:</b>	6263
<b>Approved By:</b>	Dianne Blessing
<b>Title:</b>	EH&S Specialist

**Disclaimer:** The information and recommendations contained herein are based upon tests in controlled laboratory conditions, are believed to be correct, and are provided for the sole purpose of hazard communication as part of Huntsman's product safety program. This product has not been tested for, and therefore is not recommended or suitable for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended or likely, or for uses for which implantation within the human body is intended, and Huntsman assumes no liability for any such uses.

The information and recommendations contained herein are not intended to constitute performance information concerning the product, which is available in separate technical data sheets available from Huntsman upon request. Users are urged, and are urged to urge others who may come in contact with the product, to obtain and consult data sheets prior to purchase, use, transportation or storage of the product.

HUNTSMAN MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. HUNTSMAN'S LIABILITY IS STRICTLY LIMITED TO REIMBURSEMENT OF BUYER'S PURCHASE PRICE, OR IN HUNTSMAN'S DISCRETION REPLACEMENT, OF THE PRODUCT IN RESPECT OF WHICH SUCH CLAIM IS MADE. HUNTSMAN'S LIABILITY IS STRICTLY LIMITED BY LEGAL NOTICES IN TECHNICAL DATA SHEETS, PRODUCT LITERATURE AND/OR SALE

Effective Date: 8/30/05

DOCUMENTS. The foregoing DISCLAIMERS and LIMITATION OF LIABILITY supercede inconsistent or contradictory provisions in Buyer's documents.

USER SHOULD CONSULT A LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENTAL AGENCY TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT. HUNTSMAN DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.