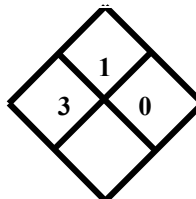


**DISTRIBUTED BY FREEMAN MFG & SUPPLY CO. 800-321-8511**

24-Hour Emergency Phone: 1-888-354-3323

**Effective Date:** 1/20/04**Material Safety Data Sheet**

MSDS No: 31740

**1. PRODUCT IDENTIFICATION****Trade Name:** Ren 2000**Chemical Family:** Amine

NFPA RATING

<b>Health:</b>	<b>3</b>
<b>Flammability:</b>	<b>1</b>
<b>Reactivity:</b>	<b>0</b>
<b>Personal Protection:</b>	

HMIS RATING

**Synonyms:**

Cast-IT 2000 Hardener

**Intended Use or Product Type:**

Heat resistant hardener

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				MFR.	CARCINOGEN STATUS		
			ACGIH		OSHA			IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	2855-13-2	Cyclohexanemethanamine, 5-Amino-1,3,3-Trimethyl- Isophorone diamine Common Name:	NE	NE	NE	NE	NE	NR	NR	NR
*	931-36-2	1H-Imidazole, 2-Ethyl-4-Methyl- Akylated imidazole curing agent Common Name:	NE	NE	NE	NE	NE	NR	NR	NR

NE = Not Established NR = Not Reviewed \* = OSHA Hazardous Ingredient

**3. HAZARDS IDENTIFICATION****Emergency Overview:** Corrosive - Causes skin and eye burns. Harmful if absorbed through skin. May cause allergic skin reaction.**Primary Route(s) of Entry:** Dermal; heated product may produce inhalable vapors.**Acute Exposure:** Corrosive. Causes skin and eye burns.**4. FIRST AID MEASURES****Ingestion:** If conscious, give 2 - 4 glasses of water to drink. Do not induce vomiting. Call a physician.

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**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:** Corrosive - causes skin and eye burns. Harmful if absorbed through skin. May cause allergic skin reaction.

**Medical Conditions Aggravated by Exposure:** Skin and eye conditions.

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

## **5. FIRE FIGHTING MEASURES**

<b>Flash Point:</b>	> 240°F (> 116 °C)
<b>Flash Point Method Used:</b>	PMCC
<b>Flammable Limits in Air (Lower - % by volume):</b>	Not established
<b>Flammable Limits in Air (Upper - % by volume):</b>	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.

## **6. ACCIDENTAL RELEASE MEASURES**

**Accidental Release Measures:** Remove spillage by absorbing in absorbent material.

## **7. HANDLING AND STORAGE**

**Signal Word:** Danger!

**Precautions:** Corrosive - causes skin and eye burns. Can cause allergic skin reaction. Can be harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. 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:** Wear impermeable gloves.

**Respiratory Protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

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

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

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

<b>Appearance:</b>	Clear
<b>Color:</b>	Amber
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Moderate
<b>Vapor Pressure:</b>	Not Determined
<b>Specific Gravity:</b>	0.92 - 0.96 (water = 1)
<b>Boiling Point:</b>	> 400°F (> 204 °C)
<b>Evaporation Rate:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>VOC:</b>	52.5 g/L

**Percent Volatile:** Negligible.

## **10. STABILITY AND REACTIVITY**

**Conditions to Avoid:** Excessive heat for prolonged periods of time.

**Stability:** Stable.

**Incompatibility:** Strong oxidizers, acids and bases.

**Hazardous Decomposition Products:** Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

**Hazardous Polymerization:** Will not occur.

## **11. TOXICOLOGICAL INFORMATION**

**Acute Dermal Toxicity (LD50):** Component(s) are toxic, 200 - 1000 mg/kg (rabbit).

**Sensitization:** Possible in susceptible individuals.

**Skin Irritation:** Corrosive. Causes burns.

**Eye Irritation:** Corrosive. Causes burns.

## **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**

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**DOT: Non-Bulk**

**Proper Shipping Name:** Isophoronediamine mixture  
**Hazard Class:** 8  
**ID Number:** UN 2289  
**Packing Group:** PG III  
**Label:** Corrosive

**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 a hazardous waste under RCRA (40 CFR 261) but handle with care due to corrosive effect on skin and eyes.

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).

**TSCA Section 8(b) - Inventory Status:** Chemical components listed on TSCA Inventory.

**TSCA Section 12(b) - Export Notification:** This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

**State Regulations:**

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

Chemical Name: Cyclohexanemethanamine, 5-Amino-1,3,3-Trimethyl-

Common Name: Isophorone diamine

CAS Number: 2855-13-2

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1H-Imidazole, 2-Ethyl-4-Methyl-

Common Name: Akylated imidazole curing agent

CAS Number: 931-36-2

Comment: Not on Pennsylvania Hazardous Substance List

**16. OTHER INFORMATION**

**MSDS No:** 31740  
**Approved By:** Kenneth L. Payne  
**Title:** E,H&S Manager

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incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.