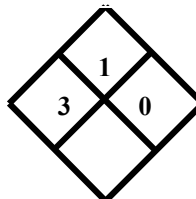


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24-Hour Emergency Phone: 1-888-354-3323

Effective Date: 10/12/04**Material Safety Data Sheet**

MSDS No: 6044

1. PRODUCT IDENTIFICATION**Trade Name:** Ren 3209-1**Chemical Family:** Amine

NFPA RATING

Health:	3
Flammability:	1
Reactivity:	0
Personal Protection:	

HMIS RATING

Synonyms:

RP 3209-1 Hardener

Intended Use or Product Type: Casting 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				
*	112-24-3	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)- Triethylenetetramine	NE	NE	NE	NE	NE	NR	NR	NR
*	68410-23-1	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines Polyamide Resin	NE	NE	NE	NE	NE	NR	NR	NR
*	68441-70-3	1,2-Ethanediamine, N,N'-Bis(2-Aminoethyl)-, Propoxylated Propoxylated triethylene tetramine	NE	NE	NE	NE	NE	NR	NR	NR
*	80-52-4	Cyclohexanemethanamine, 4-amino-a,a,4-trimethyl- Menthane diamine	NE	NE	NE	NE	NE	NR	NR	NR

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

3. HAZARDS IDENTIFICATION

Emergency Overview: Corrosive - Causes eye burns and severe skin irritation. May cause skin burns. May cause allergic skin reaction. Harmful if absorbed through skin.

Effective Date: 10/12/04

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: Corrosive - causes eye burns. Causes severe skin irritation and may cause skin burns. Can cause allergic skin reaction. Can be harmful if absorbed through skin.

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

Flash Point:	248°F (120 °C)
Flash Point Method Used:	PMCC
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.

6. ACCIDENTAL RELEASE MEASURES

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

7. HANDLING AND STORAGE

Signal Word: Danger!

Precautions: Corrosive - causes eye burns. Causes severe skin irritation and may cause skin 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.

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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.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear Amber
Odor:	Ammonia Like
Physical State:	Liquid
Solubility in Water:	Slight
Vapor Pressure:	0.8 mm Hg at 85°C (185 °F)
Specific Gravity:	0.97 - 0.99 (water = 1)
Boiling Point:	> 285°F (> 141 °C)
Evaporation Rate:	Not Determined
Vapor Density:	Not Determined
VOC:	269.5 g/L
pH:	Not Determined

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).
Triethylenetetramine= 550 - 800 mg/kg (rabbit)

Sensitization: Possible in susceptible individuals.

Skin Irritation: Severe skin irritant.

Eye Irritation: Corrosive. Causes burns.

12. ECOLOGICAL INFORMATION

Effective Date: 10/12/04

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 a hazardous waste under RCRA (40 CFR 261).

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: All chemical components of this product are in compliance with TSCA inventory requirements.

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:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

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

Chemical Name: Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines

Common Name: Polyamide Resin

CAS Number: 68410-23-1

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-

Common Name: Triethylenetetramine

CAS Number: 112-24-3

Comment: Hazardous Substance

Effective Date: 10/12/04

Chemical Name: 1,2-Ethanediamine, N,N'-Bis(2-Aminoethyl)-, Propoxylated
Common Name: Propoxylated triethylene tetramine
CAS Number: 68441-70-3
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Cyclohexanemethanamine, 4-amino-a,a,4-trimethyl-
Common Name: Menthane diamine
CAS Number: 80-52-4
Comment: Not on Pennsylvania Hazardous Substance List

16. OTHER INFORMATION

MSDS No: 6044
Approved By: Dianne Blessing
Title: EH&S Specialist

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