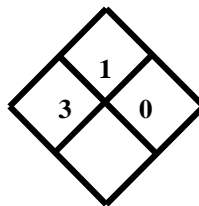


P.O. Box 4980  
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**Effective Date:** 9/25/07**Material Safety Data Sheet**

MSDS No: 5984

**1. PRODUCT IDENTIFICATION****Trade Name:** Ren 1124**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:**

RP 1124 Hardener  
TDT 208-3 Hardener

**Intended Use or Product Type:** Surface coat hardener**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				
*	140-31-8 Common Name: Concentration	1-Piperazineethanamine Aminoethylpiperazine 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	1477-55-0 Common Name: Concentration	1,3-Benzenedimethanamine m-Xylenediamine 10.00 - 30.00 % by wt	NE	0.1 mg/m3	NE	NE	NE	NR	NR	NR
*	25154-52-3 Common Name: Concentration	Phenol, Nonyl- Nonyl Phenol 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	25322-68-3 Common Name: Concentration	Poly(oxy-1,2-ethanediyl), .alpha.- hydro-.omega.-hydroxy- Polyether polyol 7.00 - 13.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	2855-13-2 Common Name: Concentration	Cyclohexanemethanamine, 5- Amino-1,3,3-Trimethyl- Isophorone diamine 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR

\* = OSHA Hazardous Ingredient

### 3. HAZARDS IDENTIFICATION

**Emergency Overview:** Corrosive - causes skin and eye burns. Can cause allergic respiratory reaction and allergic skin reaction. Can be harmful if absorbed through skin and may be harmful if swallowed.

**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:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

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

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

**Overexposure Effects:** Corrosive - causes skin and eye burns. Can cause allergic respiratory reaction and allergic skin reaction. Can be harmful if absorbed through skin and may be harmful if swallowed.

**Medical Conditions Aggravated by Exposure:** Skin, eye and pulmonary 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>	Not established
<b>Flash Point Method Used:</b>	Not established
<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.

Effective Date: 9/25/07

## 7. HANDLING AND STORAGE

**Signal Word:** Danger!

**Precautions:** Corrosive - causes skin and eye burns. Can cause allergic respiratory reaction and 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.

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Color:</b>	Clear Amber
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Moderate
<b>Vapor Pressure:</b>	Not Determined
<b>Specific Gravity:</b>	0.99 (water = 1)
<b>Boiling Point:</b>	Not Determined
<b>Melting Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>VOC:</b>	247.5 g/L
<b>pH:</b>	Not Determined
<b>Coefficient of water/oil:</b>	Not Determined

**Percent Volatile:** Not determined.

## 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.

Effective Date: 9/25/07

**11. TOXICOLOGICAL INFORMATION****Acute Oral Effects (LD50):** Component(s) are slightly toxic, 500 - 5000 mg/kg (rat).

1,3-Benzenedimethanamine= 930 mg/kg (rat)

Isophorone diamine= 1030 mg/kg (rat)

Aminoethylpiperazine= 2140 mg/kg (rat)

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

Aminoethylpiperazine= 880 mg/kg (rabbit)

**Sensitization:** May cause allergic skin reaction and respiratory sensitivity in some people.**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****DOT: Non-Bulk**

<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Isophorone diamine, Metaxylenediamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive

**IATA: Non-Bulk**

<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Isophorone diamine, Metaxylenediamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive

**IMDG: Non-Bulk**

<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Isophorone diamine, Metaxylenediamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive

**TDG: Non-Bulk**

<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Isophorone diamine, Metaxylenediamine
<b>Hazard Class:</b>	8

Effective Date: 9/25/07

**ID Number:** UN 2735  
**Packing Group:** PG II  
**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:** 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.

### International Regulations:

**Canadian Inventory Status:** This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

**Canadian WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D1B D2A D2B E

### 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: 1,4-Dioxane  
Common Name: Diethylene ether  
CAS Number: 123-91-1  
Percent in Composition: 0.0001 % by wt  
Comment: Warning! This chemical is known to the State of California to cause cancer.

Chemical Name: Oxirane  
Common Name: Ethylene oxide  
CAS Number: 75-21-8  
Percent in Composition: 0.0001 % by wt  
Comment: Warning! This chemical is known to the State of California to cause cancer and birth defects or other reproductive harm.

Chemical Name: Acetaldehyde

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**Effective Date: 9/25/07**

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Common Name: Acetaldehyde  
CAS Number: 75-07-0  
Percent in Composition: 0.0001 % by wt  
Comment: Warning! This chemical is known to the State of California to cause cancer.

Chemical Name: Formaldehyde  
Common Name: Formaldehyde  
CAS Number: 50-00-0  
Percent in Composition: 0 % by wt  
Comment: Warning! This chemical is known to the State of California to cause cancer.

**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: 1,3-Benzenedimethanamine  
Common Name: m-Xylenediamine  
CAS Number: 1477-55-0  
Comment: Hazardous Substance

Chemical Name: Phenol, Nonyl-  
Common Name: Nonyl Phenol  
CAS Number: 25154-52-3  
Comment: Hazardous Substance

Chemical Name: 1-Piperazineethanamine  
Common Name: Aminoethylpiperazine  
CAS Number: 140-31-8  
Comment: Hazardous Substance

Chemical Name: Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-  
Common Name: Polyether polyol  
CAS Number: 25322-68-3  
Comment: Not on Pennsylvania Hazardous Substance List

## **16. OTHER INFORMATION**

**MSDS No:** 5984  
**Approved By:** Dianne Blessing  
**Title:** EH&S Specialist

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**Effective Date: 9/25/07**

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