



# Safety Data Sheet

RF 24 RT

## Section 1. Identification

Product Identifier	RF 24 RT
Synonyms	Epoxy resin
Manufacturer Stock Numbers	25020
Recommended use	Epoxy Resin
Uses advised against	Oxidizing agents, acids, aldehydes, ketones, epoxides, acrylates, and organic halides.
Manufacturer Contact	
Address	Resin Formulators 18027 Bishop Avenue Carson, CA, 90746 USA
Phone	(310) 204-6159
Emergency Phone	(800) 424-9300 CHEMTREC
Fax	(310) 202-7247
Email	sales@evroberts.com
Website	http://www.evroberts.com

## Section 2. Hazards Identification

Classification	ACUTE TOXICITY - DERMAL - Category 4 ACUTE TOXICITY - INHALATION - Category 3 ACUTE TOXICITY - ORAL - Category 4 EYE DAMAGE/IRRITATION - Category 2A SKIN CORROSION/IRRITATION - Category 1C
Signal Word	Danger

Pictogram



Hazard Statements

Causes serious eye irritation  
Causes severe skin burns and eye damage  
Harmful if swallowed  
Harmful in contact with skin  
Toxic if inhaled

Precautionary Statements

Response

Call a poison center/doctor/ ... /if you feel unwell.  
Call a poison center/doctor/...  
If eye irritation persists: Get medical advice/attention.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If on skin: Wash with plenty of water/ ...  
If swallowed: Call a poison center/doctor/ ... / if you feel unwell.  
If swallowed: Rinse mouth. Do NOT induce vomiting.  
Immediately call a poison center/doctor/ ...  
Rinse mouth.  
Specific treatment (see ... on this label)  
Take off immediately all contaminated clothing and wash it before reuse.  
Wash contaminated clothing before reuse.

Prevention

Avoid breathing dust/fume/gas/mist/ vapors/spray.  
Do not breathe dust/fume/gas/mist/ vapors/spray.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wash ...thoroughly after handling.  
Wear eye protection/face protection.  
Wear protective Butyl Gloves, Face Shield, Eye Bath and Safety Shower.  
Wear protective gloves/protective clothing/eye protection/face protection.

Storage

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

Disposal

Dispose of contents/container to ...

Ingredients of unknown toxicity

0%

Hazards not Otherwise Classified

Over-exposure signs/symptoms

Inhalation

Vapors or mist, especially as generated from heating the material or as from exposure in poorly ventilated areas or confined spaces, are irritating and cause nasal discharge, coughing, and discomfort in nose and throat. Prolonged or repeated overexposure may result in lung damage.

Skin or eyes

A strong sensitizer (can cause an allergic reaction such as skin rashes, swelling, and even open sores). This reaction can become worse with additional exposure until affected individual cannot tolerate even very small exposures to the chemical without experiencing symptoms. Causes chemical burns.

Skin	Prolonged contact with this product can cause reddening, swelling, rash, scaling, or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with a very small amount of the liquid material.
Inhalation	Moderately toxic. May cause nausea, vomiting, and abdominal pain. (It is caustic and could burn the tissues of the body if swallowed.)
Chronic Health Effects	May cause skin sensitization resulting in rashes and even open sores from contact with chemical.

### Section 3. Ingredients

CAS	Ingredient Name	Weight %
6864-37-5	Cyclohexanamine, 4,4'-methylenebis[2-methyl-	<90 %
112-24-3	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-	>10 %

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-Aid Measures

Eye	Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
Skin	Remove contaminated clothing and shoes. Wash skin with soap and water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.
Ingestion	Do not induce vomiting. The victim should drink several glasses of water to dilute the ingested substance. If vomiting occurs naturally, keep airway clear. Get medical attention. Never give anything by mouth if the victim is rapidly losing consciousness, or is unconscious or convulsing.
Medical Conditions Aggravated by Exposure	Allergies or respiratory conditions such as asthma may be aggravated by excessive contact with this chemical.

## Section 5. Fire Fighting Measures

### Suitable Extinguishing Media

Extinguishing media:  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Dry sand  
Limestone powder.

#### Specific Hazards:

May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.

#### Special Protective Equipment for Fire-Fighters

Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

#### Further Information:

Do not allow run-off from fire fighting to enter drains or water courses.

### Unsuitable Extinguishing Media

N/A

## Section 6. Accidental Release Measures

### Personal precautions

Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

### Spills, Leaks or Releases

Soak up small spill with absorbant material. Larger spills be collected for disposal.

### Disposal

Normal solidification and disposal as a hazardous waste per federal, state, and local regulations.

### Note

Note: Dispose of all waste in accordance with federal, state and local regulations.

## Section 7. Handling and Storage

Storage	Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.
Technical measures/Precautions	Do not store in reactive metal containers
Ventilation and Engineering controls	Store material in a cool dry place with adequate ventilation.
Respiratory Protection	Self-contained breathing apparatus in high vapor concentrations.
Eye Protection	Wear safety glasses or goggles as appropriate
Gloves	Wear chemical-resistant gloves and other clothing as required to minimize skin contact
Other Clothing and Equipment	Face shield, eye bath, and safety shower.
Hygienic Practices	Laundry contaminated clothes before wearing. Do not smoke or eat where this material is being used. Wash hands before smoking, eating or going to the bathroom

## Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	Cyclohexanamine, 4,4'-methylenebis[2-methyl-	N/A	N/A	N/A
	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-	N/A	1 ppm, skin, TWA 6 mg/m <sup>3</sup> , inhalation	N/A
Personal Protective Equipment Engineering Measures	Goggles, Gloves, Face Shield, Respirator, CHEMICAL GOGGLES, PROTECTIVE CLOTHING, EYE WASH AND SAFETY SHOWER Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.			
Personal Protective Equipment Respiratory Protection Hand protection	Wear appropriate respirator when ventilation is inadequate. Neoprene gloves. Butyl-rubber. Nitrile rubber. Impervious gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.			
Eye protection	Full face shield with goggles underneath. Chemical resistant goggles must be worn.			
Skin and Body Protection	Slicker Suit. Impervious clothing. Full rubber suit (rain gear). Rubber or plastic boots. Long sleeve shirt and trousers without cuffs.			
Environmental exposure controls	Construct a dike to prevent spreading.			

## Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear to light yellow
Odor	mild ammoniacal
Odor Threshold	N/A
Solubility	Slightly soluble
Partition coefficient Water/n-octanol	N/A
VOC%	1
Viscosity	N/A
Specific Gravity	1.1
Density lbs/Gal	0.95
Pounds per Cubic Foot	59.307
Flash Point	286°F
FP Method	Pensky-Martens closed cup ASTM D 93
Ph	11
Melting Point	N/A
Boiling Point	>212°F (>100°C)
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	<1
Vapor Density	30.1266

Density 59.307 lb/ft<sup>3</sup> (0.95 g/cm<sup>3</sup>) at 70°F (21°C)

## Section 10. Stability and Reactivity

Materials to Avoid	Sodium hypochlorite. Organic acids (i.e. acetic acid, citric acid, etc.). Mineral acids. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Avoid high temperatures. Avoid flames and contact with strong oxidizing agents.
Incompatibilities	Oxidizing agents, acids, aldehydes, ketones, epoxides, acrylates, and organic halides.
Hazardous Decomposition Products	Nitric Acid. Ammonia. Nitrogen Oxides (NO <sub>x</sub> ). Nitrogen Oxides can react with water vapors to form corrosive nitric acid. Carbon Monoxide. Carbon Dioxide (CO <sub>2</sub> ).
Hazardous Polymerization	Will not occur

## Section 11. Toxicological Information

Eye Contact	Corrosive. Causes burns.
Skin Irritation	Toxic is absorbed through skin. Causes skin burns.
Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	Toxic if swallowed. May cause burns to mouth, throat and stomach.
Symptoms and Target Organs	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat, Eye disease, Skin disorders and Allergies.
Acute Oral Toxicity	LD50: >320 mg/kg, Species : Rat.
Acute Inhalation Toxicity	LC50 (4 h): 0.42 mg/l, Species : Rat (as aerosol)
Acute Dermal Toxicity	LD50: >200 mg/kg, Species : Rabbit
Skin Irritation	Severe skin irritant
Eye Irritation	Severe eye irritant
Sensitization	No data available
Chronic (Long Term) Effects of Exposure	
Carcinogenicity	No data available
Reproductive Effects	No adverse reproductive effects are anticipated.
Germ cell mutagenicity	Not mutagenic in AMES Test.
Specific target organ toxicity - repeated exposure	no data available
Aspiration hazard	No data available
	Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure This product contains no listed carcinogens according to IARC, ACGIH, NTP, and/or OSHA in concentrations or 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Asthma, Eye disease, Skin disorders and Allergies.



## Section 12. Ecological Information

### Ecotoxicity Effects

#### Aquatic Toxicity

LC50 (96 h) : > 22 - < 45 mg/l  
Species : Golden orfe (*Leuciscus idus*).  
EC50 (40 h) : 15.2 mg/l  
Species : *Daphnia*  
EC50 (72 h) : 2.1 mg/l  
Species : *Scenedesmus subspicatus*

#### Toxicity to other organisms

(17 h): 96 mg/l  
Species : toxicity to bacteria  
: 160 mg/l

#### Persistence and degradability

Biodegradability: No data is available on the product itself.

Mobility: No data available

Bioaccumulation: No data is available on the product itself.

## Section 13. Disposal

#### Waste from residues / unused products

Contact supplier if guidance is required.

#### Contaminated packaging

Dispose of container and unused contents in accordance with federal, state, and local requirements.

## Section 14. Transport Information

#### UN Number

2922

#### UN Proper Shipping Name

CORROSIVE LIQUIDS, TOXIC, N.O.S., (2-2'-dimethyl-4-4'-methylenedis (cyclohexylamine))

#### DOT Classification

8

#### Packing Group

II

#### Marine Pollutant

Yes

#### Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material.

## Section 15. Regulatory Information

Regulatory Information	<p>USA (TSCA) Included on the TSCA inventory EU (EINECS) Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer Canadian Domestic Substance List (DSL) Included on DSL inventory China (IECSC) Included on the IECSC Inventory Australia (AICS) Included on the AICS Inventory Japan (ENCS) Included on the ENCS Inventory China (IECSC) Included on the IECSC Inventory Philippines (PICCS) Included on the PICCS Inventory</p> <p>EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification Acute Health Hazard</p> <p>EPA SARA TITLE III Section 313 (40 CFR 372) Component(s) above de minimus level: None</p> <p>CALIFORNIA PROPOSITION 65 WARNING: This product does not contain any chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm.</p>
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## Section 16. Other Information

Revision Date	10/26/2015
HMIS Rating (Not Regulated)	<p>The HMIS Rating for this product is: Health: 3 Flammability: 1 Reactivity: 0</p> <p>0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe</p> <p>For Information Purposes Only - No Longer Regulated</p>
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