



Safety Data Sheet

RF 24

Section 1. Identification

Product Identifier	RF 24	
Synonyms	Cycloaliphatic amine	
Manufacturer Stock Numbers	10062	
Product Cas	6864-37-5	
Recommended use	N/A	
Uses advised against	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.	
Manufacturer Contact		
Address	Resin Formulators 18027 Bishop Avenue Carson, CA, 90746 USA	
Phone	Emergency Phone	Fax
(310) 204-6159	(800) 424-9300 CHEMTREC	(310) 202-7247
Email	Website	
info@resinformulators.com	http://www.resinformulators.com	

Section 2. Hazards Identification

Classification	ACUTE TOXICITY - INHALATION - Category 3 ACUTE TOXICITY - ORAL - Category 3 EYE DAMAGE/IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (Single E - Category 3)
Signal Word	Danger

Pictogram



Hazard Statements

Severe respiratory irritant
Toxic if inhaled
Toxic if swallowed

Precautionary Statements

Response

Call a poison center/doctor/ ... /if you feel unwell.
Call a poison center/doctor/...
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If swallowed: Immediately call a poison center/doctor/...
Rinse mouth.
Specific treatment (see ... on this label)

Prevention

Avoid breathing 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 protective gloves/eye protection/face protection

Storage

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

Disposal

Refer to manufacturer/Supplier for information on recovery/recycling

Ingredients of unknown toxicity

0%

Hazards not Otherwise Classified

Inhalation

Highly toxic by inhalation. Harmful if inhaled and may cause delayed lung injury. Delayed adverse effects possible. Inhalation of aerosol may cause irritation to the upper respiratory tract. Risk of serious damage to the lungs (by Inhalation). May cause nose, throat, and lung irritation. Can cause severe eye, skin and respiratory tract burns. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.

Eye contact

Causes eye burns. May cause blindness. Severe eye irritation.

Skin contact

Causes skin burns. Toxic in contact with skin.

Ingestion

May be fatal if swallowed. Toxic if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Chronic Health Hazard

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage.

Exposure Guidelines

Target Organs: Skin, Eyes and Respiratory System

Aggravated Medical Condition

Symptoms: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause Sore Throat
Asthma. Eye disease. Skin disorders and Allergies.

Section 3. Ingredients

CAS	Ingredient Name	Weight %
7732-18-5	Water	1% - Max
6864-37-5	Cyclohexanamine, 4,4'-methylenebis[2-methylenebis(cyclohexylamine)]	99% - Min

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

Section 4. First-Aid Measures

General advice	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
Eye Contact	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.
Skin Contact	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
Ingestion	If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
Inhalation	If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	<p>Extinguishing media: Alcohol-resistant foam Carbon dioxide (CO₂) Dry chemical Dry sand Limestone powder.</p> <p>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.</p> <p>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.</p>
Unsuitable Extinguishing Media	N/A
Further Information	<p>Further Information: Do not allow run-off from fire fighting to enter drains or water courses.</p>

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.
Environmental Precautions	Construct a dike to prevent spreading
Methods for cleaning up	Approach suspected leak areas with caution. If necessary, contact Air Products Emergency Response Center for additional advice. Place in appropriate chemical waste container.
Additional advice	Open enclosed spaces to outside atmosphere. Evacuate area and do not approach spilled product. If possible, stop flow of product.

Section 7. Handling and Storage

Handling	Avoid contact with skin and eyes. Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.
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

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	Water	N/A	N/A	N/A
	Cyclohexanamine, 4,4'-methylenebis[2-methylenebis(cyclohexylamine)]	N/A	N/A	N/A
Personal Protective Equipment Engineering Measures	Goggles, Gloves, Apron, Face Shield, Respirator, PROTECTIVE CLOTHING Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.			
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.			
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.			
Special Instructions	Discard contaminated leather articles. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet			

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Light Yellow
Odor	Irritating
Odor Threshold	N/A
Solubility	Slightly Soluble
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	N/A
Specific Gravity	1
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	140.56°C
FP Method	N/A
Ph	59.307 lb/ft3 (0.95 g/cm3)
Melting Point	N/A
Boiling Point	>212°F
Boiling Range	> 100°C
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	< 0.10 mmHg
Vapor Density	30.1266

Section 10. Stability and Reactivity

Chemical Stability	Stable under normal conditions.
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.
Hazardous Decomposition Products	Nitric Acid. Ammonia. Nitrogen Oxides (NOx). Nitrogen Oxides can react with water vapors to form corrosive nitric acid. Carbon Monoxide. Carbon Dioxide (CO2).

Section 11. Toxicological Information

Ingestion	LD50 : > 320 - < 460 mg/kg Species : Rat.
Inhalation	LC50 (4 h) : 0.42 mg/l Species : Rat. Industrial chemicals such as this material with acute aerosol toxicity values as shown in Section 11 would not be classified as toxic by inhalation according to US domestic and international transport regulations.
Skin	LD50 : > 200 mg/kg Species : Rabbit.
Eye Irritation	Severe eye irritation.
Acute Dermal Irritation/corrosion	Severe skin irritation.
Chronic Health Hazard	Not mutagenic in AMES Test.

Section 12. Ecological Information

Aquatic Toxicity	LC50 (96 h) : > 22 - < 45 mg/l Species : Golden orfe (<i>Leuciscus idus</i>). EC50 (40 h) : 15.2 mg/l Species : Daphnia EC50 (72 h) : 2.1 mg/l Species : <i>Scenedesmus subspicatus</i>
Toxicity to other organisms	: 96 mg/l Species : toxicity to bacteria : 160 mg/l
Persistence and degradability	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 liquid, toxic, N.O.S. (2,2'-dimethyl-4,4'-methylenebis cyclohexylamine)
DOT Classification	8 (6.1)
Packing Group	II

Section 15. Regulatory Information

OSHA Hazard Communication Standard OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class (es)
Corrosive. Toxic

Regulatory Information USA (TSCA) Included on inventory
EU (EINECS) Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer
Canadian (DSL) Included on Inventory.
Australia (AICS) Included on Inventory.
Japan (ENCS) Included on Inventory.
South Korea (ECL) Included on Inventory.
China (SEPA) Included on Inventory.
Philippines (PICCS) Included on Inventory.

EPA SARA TITLE III Section 312 (40 CFR 370) Hazard Classification:
Acute Health Hazard, Chronic Health Hazard

EPA SARA TITLE III Section 313 (40 CFR 372)
Component(s) above de minimus level: None

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.

WHMIS Hazard Classification:
Toxic material causing other toxic effects

Section 16. Other Information

Revision Date 9/14/2021

HMIS Rating (Not Regulated) The HMIS Rating for this product is:
Health: 3 Flammability: 1 Reactivity: 0

For Information Purposes Only - No Longer Regulated

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