



Safety Data Sheet

RF 30

Section 1. Identification

Product Identifier	RF 30		
Synonyms	Polyoxypropylenediamine		
Manufacturer Stock Numbers	10076		
Recommended use	Curing Agent		
Uses advised against	Avoid strong acids, (ie. acetic acid, citric acid etc.) Mineral acids Avoid high temperatures, flames and contact with strong oxidizing agents.		
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	
	sales@evroberts.com	http://www.evroberts.com	

Section 2. Hazards Identification

Classification	ACUTE TOXICITY - ORAL - Category 4 CORROSIVE TO METALS - Category 1 EYE DAMAGE/IRRITATION - Category 2A SKIN CORROSION/IRRITATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (Single E - Category 3)
Signal Word	Warning

Pictogram



Hazard Statements

Causes serious eye irritation
Causes severe skin burns and eye damage
Harmful if swallowed
May be corrosive to metals
May cause respiratory irritation; or May cause drowsiness or dizziness

Precautionary Statements

Response

Absorb spillage to prevent material damage.
Call a poison center/doctor/ ... /if you feel unwell.
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 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)
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.
Keep only in original container.
Use only outdoors or in a well-ventilated area.
Wash ...thoroughly after handling.
Wear eye protection/face protection.
Wear protective gloves/protective clothing/eye protection/face protection.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store in corrosive resistant/... container with a resistant inner liner.
Store locked up.

Disposal

Refer to manufacturer/Supplier for information on recovery/recycling

Ingredients of unknown toxicity

0%

Hazards not Otherwise Classified

EMERGENCY OVERVIEW

Appearance

Colorless to slightly yellow liquid with a slight haze.

Odor

Amine/Ammoniacal

DANGER

CORROSIVE – CAUSES EYE AND SKIN BURNS
HARMFUL OR FATAL IF SWALLOWED
CAUSES RESPIRATORY TRACT IRRITATION AND CAN CAUSE DAMAGE
ASPIRATION HAZARD IF SWALLOWED
CAN ENTER LUNGS AND CAUSE DAMAGE

Potential Health Effects

Routes of Entry

Skin Contact, Eye Contact, Inhalation, Ingestion

Over-exposure
signs/symptoms

Eye

Causes irritation, experienced as pain, with excess blinking and tear production, and severe as extreme redness and swelling of the eyes and chemical burns of the eye. Severe eye damage may cause blindness.

Skin

Causes severe irritation with pain, severe redness and swelling with chemical burns, blister formation, and possible tissue destruction. Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below and Section 11 for information regarding potential long term effects.

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.

Ingestion

Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

Sensitization Properties

This product is not expected to be a human skin sensitizer based on animal data.

Chronic Exposure

Repeated skin contact may cause a persistent irritation or dermatitis. Repeated inhalation may cause lung damage.

Aggravated Medical
Condition

Skin contact may aggravate an existing dermatitis (skin condition). Overexposure to vapor, dust or mist may aggravate existing respiratory conditions, such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

Section 3. Ingredients

CAS	Ingredient Name	Weight %
9046-10-0	O,O'-Bis(2-aminopropyl)polypropylene glycol	100 %

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

Section 4. First-Aid Measures

Eye	Immediately flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention immediately. Continue flushing for an additional 15 minutes if medical attention is not immediately available.
Skin	Immediately remove contaminated clothing and shoes. Under a safety shower, flush skin thoroughly with large amounts of running water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Get medical attention immediately. Discard or decontaminate clothing and shoes before reuse.
Ingestion	If person is conscious and can swallow, immediately give two glasses of water (16 oz.), but do not induce vomiting. This material is corrosive. If vomiting occurs, give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.
Inhalation	If inhaled, remove to fresh air. If not breathing or in respiratory distress, clear person's airway and start artificial respiration. With a physician's advice, give supplemental oxygen using a bag-value mask or manually triggered oxygen supply.
Other Instructions	Swallowing of this corrosive material may result in severe ulceration, inflammation, and possible perforation of the upper alimentary tract, with hemorrhage and fluid loss. Aspiration of this product during induced emesis can result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Control Center for additional treatment information.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	Auto Ignition Temperature: Not Available Flammable Limits (Lower): Not Available Flammable Limits (Upper): Not Available Extinguishing media: Use water spray, dry chemical, foam or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing. Unusual Fire and Explosion Hazards: Not Applicable Wear special chemical protective clothing and positive pressure self-contained breathing apparatus. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Decontaminate or discard any clothing that may contain chemical residues.
Unsuitable Extinguishing Media	N/A

Section 6. Accidental Release Measures

Personal precautions	Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Environmental Precautions	Prevent further leakage or spillage.
Spill and Leak Procedures	Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.
Methods for cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Contact Air Products Emergency Response Center for advice.

Section 7. Handling and Storage

Safe Handling Precautions	Precautions for safe handling Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Moisture sensitive.
Storage Temperature (Min/Max)	Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials Maximum Storage Temperature: 68 Degrees F (21 Degrees C). Store indoors in a cool, dry area with adequate ventilation. Use inert gas blanketing for bulk storage.

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	O,O'-Bis(2-aminopropyl)polypropylene glycol	N/A	N/A	N/A
Personal Protective Equipment	Goggles, Gloves, Face Shield, Respirator, CHEMICAL GOGGLES, PROTECTIVE CLOTHING			
Personal Protective Equipment Eye protection	Full face shield with goggles underneath. Chemical resistant goggles must be worn.			
Skin Protection	Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits, gloves, and rubber boots must be worn. Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.			
Respiratory Protection	Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirator should always be worn when airborne concentration of the contaminant or oxygen content is unknown.			
Ventilation	Local exhaust ventilation recommended if generating vapor, dust or mist. If exhaust ventilation is not available or inadequate, use NIOSH approved respirator as appropriate.			
Exposure Limits	No exposure limits have been established			

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear
Odor	N/A
Odor Threshold	N/A
Solubility	100 g/l at 20° C (68°F) soluble
Partition coefficient Water/n-octanol	N/A
VOC%	25% by ASTM D 2369
Viscosity	5.46 mm ² /s
Specific Gravity	0.948
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	128.1°C (262°F)
FP Method	closed cup - ISO 2719
Ph	11.7 (50% g/l)
Melting Point	N/A
Boiling Point	232°C (450° F)
Boiling Range	260°C (500° F)
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 mmHg at 100°C (212° F)
Vapor Density	>1

Flammable Limits (Higher) 5%
Flammable Limits (Lower) 0.7%

Section 10. Stability and Reactivity

Chemical Stability	Stable under recommended storage conditions
Reactivity	Materials to avoid: Oxidizers, Strong Acids
Conditions to Avoid	Avoid high temperatures. Avoid flames and contact with strong oxidizing agents.
Incompatibilities	Strong oxidizing materials
Hazardous Decomposition Products	Highly unlikely under normal industrial use. See section 5.

Section 11. Toxicological Information

Toxicology Information	Acute toxicity: LD50 Oral - rat - 2,885.3 mg/kg LC50 Inhalation - rat- 8 h - > 0.74 mg/l LC50 Dermal - rabbit - 2,980 mg/kg
Skin Contact	no data available Skin - rabbit Result: Corrosive, category 1C - where responses occur exposure between 1 hour and 4 hours and observations up to 14 days. (OECD Test Guideline 404)
Eye Contact	Serious eye damage/eye irritation Eyes - rabbit Result: Corrosive to eyes (OECD Test Guideline 405)
Respiratory or skin sensitisation	no data available
Mutagenicity	There is no substantial evidence of mutagenic potential.
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive Effects	No adverse reproductive effects are anticipated.
Specific target organ toxicity - repeated exposure	no data available
Aspiration hazard	No data available
Additional Information	Repeated dose toxicity – rat – Dermal – No observed adverse effect level – 250 mg/kg Repeated dose toxicity – rat – Oral – No observed adverse effect level – 239 mg/kg RTECS: Not available Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea Stomach – Irregularities – Based on Human Evidence

Section 12. Ecological Information

Toxicity	Toxicity to fish: Semi-static test LC50 – Oncorhynchus mykiss (rainbow trout) -> 15 mg/l – 96 h Static test NOEC - Oncorhynchus mykiss (rainbow trout) -> 15 mg/l – 96 h Toxicity to daphnia and other aquatic invertebrates: Static test EC50 – Daphnia – 80 mg/l – 48 h (OECD) Test Guideline 202) NOEC - Daphnia – 18 mg/l – 48 h
Persistence and degradability	Biodegradability: According to the results of tests of biodegradability this product is not readily biodegradable.
Bioaccumulative potential	Bioaccumulation: no data available
Mobility in Soil	No data available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other Adverse Effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. Do not empty into drains.

Section 13. Disposal

Waste Treatment Methods	Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated Packaging: Dispose of as unused product.
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Section 14. Transport Information

UN Number	2735
UN Proper Shipping Name	Amines, liquid, corrosive, n.o.s. (polyoxypropylene diamine)
DOT Classification	8: Corrosive
Packing Group	III

Section 15. Regulatory Information

Sara 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
Sara 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Sara 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard
Massachusetts Right to Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components	O,O'-Bis(2-aminopropyl)polypropylene glycol CAS-No: 9046-10-0
New Jersey Right to Know Components	O,O'-Bis(2-aminopropyl)polypropylene glycol CAS-No: 9046-10-0
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16. Other Information

Revision Date 6/12/2015

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

0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

For Information Purposes Only - No Longer Regulated

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