



Safety Data Sheet

RF 10

Section 1. Identification

Product Identifier	RF 10				
Synonyms	Curing Agent; 10013				
Manufacturer Stock Numbers	10013				
Recommended use	Curing Agent				
Uses advised against	Do not store in reactive metal containers.				
Manufacturer Contact Address	Resin Formulators 18027 Bishop Avenue Carson, CA, 90746 USA				
Phone	(310) 204-6159	Emergency Phone	(800) 424-9300	Fax	(310) 202-7247
			CHEMTREC		
Email	sales@evroberts.com	Website	http://www.evroberts.com		

Section 2. Hazards Identification

Classification	ACUTE TOXICITY - DERMAL - Category 4 ACUTE TOXICITY - ORAL - Category 4 CORROSIVE TO METALS - Category 1
Signal Word	Warning
Pictogram	The pictogram section contains two red diamond-shaped hazard symbols. The first diamond shows a hand being poured on by a test tube, representing skin irritation. The second diamond shows a hand with a drop of liquid on it, representing skin contact. To the right of these is a red diamond containing a black exclamation mark, representing a general warning.
Hazard Statements	Harmful if swallowed Harmful in contact with skin

	May be corrosive to metals
Precautionary Statements	
Response	Absorb spillage to prevent material damage. Call a poison center/doctor/ ... /if you feel unwell. If on skin: Wash with plenty of water/ ... If swallowed: Call a poison center/doctor/ ... / if you feel unwell. Rinse mouth. Specific treatment (see ... on this label) Take off immediately all contaminated clothing and wash it before reuse.
Prevention	Do not eat, drink or smoke when using this product. Keep only in original container. Wash ...thoroughly after handling. Wear ...protective Butyl Gloves, Face Shield, Eye Bath and Safety Shower.
Storage	Store in corrosive resistant/... container with a resistant inner liner.
Disposal	Dispose of contents/container to ...
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	
Potential Health Effects	
Emergency Overview	Corrosive. Components of the product may affect the nervous system. Harmful if swallowed. Harmful in contact with skin.
Inhalation	Can cause severe eye, skin and respiratory track burn. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.
Skin Contact	Causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness confusion, breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Harmful in contact with skin.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Harmful if swallowed.
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. Subchronic exposure of this material or component in test animals has caused abnormalities in the following organ(s). Central nervous system.
Exposure Guidelines	
Target Organs	Skin. Eyes. Central nervous system.
Aggravated Medical Condition	Eye disease, Skin disorders and Allergies. Neurological disorders.

Section 3. Ingredients

CAS	Ingredient Name	Weight %
71074-89-0	Bis(dimethylaminomethyl)phenol	<15%
90-72-2	Phenol, 2,4,6-tris[(dimethylamino)methyl]-	<90 %

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. Flush immediately with copious amounts of water. Initiate and maintain 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. Take off contaminated clothing and shoes immediately.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side. Get medical attention
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	<p>Extinguishing media: Use alcohol-resistant foam, carbon dioxide (CO₂), dry chemical, dry sand, or limestone powder.</p> <p>Specific hazards: Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.</p> <p>Protective Equipment: Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear a NIOSH-approved respirator as required to prevent over-exposure in accordance with 29 CFR 1910-134 for fire fighting if necessary.</p> <p>Further Information: Do not allow run-off from fire fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</p>
Unsuitable Extinguishing Media	N/A

Section 6. Accidental Release Measures

Personal precautions	Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
Environmental Precautions	Construct a dike to prevent spreading. Use appropriate containment and personal protection recommended in section 8 to avoid environmental contamination. Do not allow spill to enter into sewers, water sources or extensive land areas. Construct a dike to prevent spreading. Isolate the area and deny entry to unnecessary and unprotected personnel.
Major Spills	For Major Spills, call CHEMTREC at 1-800-424-9300
Clean-up	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
Additional Advice	If possible, stop flow of product

Section 7. Handling and Storage

Handling	Avoid contact with skin and eyes.
Eye/Face Protection	Face shield and safety glasses with side shields. If there is a potential for splashing or spraying of product, use full face protection and have safety showers and eye wash stations available. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Storage	Do not eat, drink or smoke when using this product
Storage Requirements	Do not store near acids. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. 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
	Bis(dimethylaminomethyl)phenol	N/A	N/A	N/A
	Phenol, 2,4,6-tris[(dimethylamino)methyl]-	N/A	N/A	N/A
Personal Protective Equipment	Goggles, Gloves, Apron, Face Shield, PROTECTIVE CLOTHING, RUBBER BOOTS, CHEMICAL GOGGLES			
Engineering Measures	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	Not ordinarily required			
Hand protection	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/Face Protection	Face shield and safety glasses with side shields. If there is a potential for splashing or spraying of product, use full face protection and have safety showers and eye wash stations available. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).			
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	Amine-like
Odor Threshold	N/A
Solubility	3 g/l
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	N/A
Specific Gravity	N/A
Density lbs/Gal	60.555
Pounds per Cubic Foot	N/A
Flash Point	148.89°C
FP Method	N/A
Ph	Alkaline
Melting Point	N/A
Boiling Point	>212°F (>100°C)
Boiling Range	>212°F (>100°C)
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	1
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	<0.01 mmHg at 21°C
Vapor Density	N/A

Section 10. Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions

Materials to Avoid

Avoid organic acids (i.e. acetic acid, citric acid), mineral acids, sodium hypochlorite because product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Also avoid oxidizing agents because a reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion

Hazardous Decomposition Products

Nitric Acid, Ammonia, Nitrogen Oxides (NO_x), Carbon Monoxide, Carbon Dioxide and unknown organics. May evolve hydrogen chloride.

Section 11. Toxicological Information

Acute Oral Effects (LD50)	LD50 (Rat) 1673 mg/kg LD50 (Rat) 2169 mg/kg
Acute Dermal Toxicity (LD50)	LD50 (Rabbit) 1242 mg/kg
Inhalation	No data is available on the product itself.
Eye Contact	Severely irritating. Corrosive to the eyes of a rabbit
Skin Contact	Severe skin irritation. Corrosive to the skin of a rabbit.
Sensitization	Dermal sensitization to this product or component has been seen in some humans. The results of a test on guinea pigs showed this substance to be a weak skin sensitizer.
Chronic Health Hazard	No evidence of mutagenic activity was observed in a bacterial mutation assay. Chromosome Aberration Assay: Negative (Activated and Nonactivated)

Section 12. Ecological Information

Ecotoxicity Effects	Aquatic Toxicity: LC50 (24 h): 222 mg/l (Rainbow Trout (Oncorhynchus mykiss)) LC100 (96 h): 240 mg/l (Rainbow Trout (Oncorhynchus mykiss)) LC0 (96 h): 180 mg/l (Rainbow Trout (Oncorhynchus mykiss)) LC50 (24 h): 249 mg/l (Carp (Cyprinus carpio)) LC50 (96 h): 175 mg/l (Carp (Cyprinus carpio)) EC50 (96 h): 718 mg/l (Grass shrimp (Palaemonetes)) EC100 (96 h): 1,000 mg/l (Mud Crab (Neopanope)) EC0 (96 h): 750 mg/l (Mud Crab (Neopanopa)) EC50 (72 h): 84 mg/l (Scenedesmus subspicatus)
Persistence and degradability	Toxicity to other organisms: No data available Biodegradability: According to the results of tests of biodegradability this product is not readily biodegradable. Mobility: No data available Bioaccumulation: No data is available on the product itself.

Section 13. Disposal

WASTE DISPOSAL METHOD:	Dispose of in accord with local, state and federal regulations
Waste Treatment Methods	Waste from residues and unused products: Contact supplier if guidance is required.

Section 14. Transport Information

UN Number	2735
UN Proper Shipping Name	Amines, liquid, corrosive, n.o.s. (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol)
DOT Classification	8
Packing Group	III
Transport Information	<p>DOT (US): Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol) UN Number: UN2735 Class: 8 Packing Group: III</p> <p>IMDG: Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol) UN Number: UN2735 Class: 8 Packing Group: III</p> <p>IATA: Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol) UN Number: UN2735 Class: 8 Packing Group: III</p> <p>TDG: Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol) UN Number: UN2735 Class: 8 Packing Group: III</p>

Section 15. Regulatory Information

OSHA Hazard Communication Standard	OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class (es) Corrosive
International Regulations	Chemical Inventories: USA inventory (TSCA): All components are included on inventory Europe inventory (EINECS): All components are included on inventory Australia inventory (AICS): All components are included on inventory China inventory (SEPA): All components are included on inventory Japan inventory (ENCS): All components are included on inventory South Korea inventory (ECL): All components are included on inventory Philippines inventory (PICCS): All components are included on inventory Canada inventory (DSL): All components are included on inventory
EPA SARA Title III Section 312	EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification: Acute Health Hazard EPA SARA Title III Section 313 (40 CFR 372) Component above 'de minimus level': NONE
U.S.Prop 65	U.S. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65) This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other harm.
WHMIS Hazard Classification	Corrosive material

Section 16. Other Information

Revision Date	3/20/2015
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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