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## RESIN FORMULATORS

### Material Safety Data Sheet

#### Section 1 – Chemical Product and Company Identification

Product Name: RF 132  
 Product Use: Epoxy Resin Color Pigment Paste, RED  
 Date Effective: 7-29-2011

Manufactured by:

**E.V. Roberts**  
**Resin Formulators**  
 18027 Bishop Ave.  
 Carson, CA 90746  
 (800) 374-3872

*In an emergency call CHEMTREC @ 800-424-9300*

#### Section 2 – Composition/Information on Ingredients

Hazardous Ingredient(s)	%(by wt.)	ACGIH TLV	CAS NO.
(1) Bis A/Epichlorohydrin Resin	85-90 %	None established	025068-99-8

**NOTE:** *This product contains pigments which may become a dust nuisance when removed by abrasive blasting, sanding, or grinding.*

*(see Section 12, Acute Toxicity Data)*

#### Section 3 – Hazards Identification

##### **EMERGENCY OVERVIEW**

**Health Hazards:** Moderately irritating to skin May cause sensitization by continuous contact with skin or vapors (especially if heated). Moderately irritating to eyes

**Physical Hazards:** Reacts with strong oxidizing agents, amines, acids (Lewis of mineral ). Will exotherm when reacting. This reaction accelerates at higher temperatures.

**Appearance:** Red Resinous liquid, Honey –like consistency

**Odor:** Slightly sweet odor

*Read the entire MSDS for a more thorough evaluation of the hazards.*

**Section 4 – FIRST AID MEASURES**

- General:** In case accident or if you feel unwell. Seek medical advice immediately (Show the label where possible).
- Inhalation:** Remove patient from exposure, keep warm and at rest. Obtain medical attention. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, qualified personnel should administer oxygen. Apply artificial respiration if breathing has ceased or shows signs of failing.
- Skin Contact:** Remove contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, **obtain medical advice**. Contaminated clothing should be thoroughly cleaned before reuse. Contaminated leather articles **can not be decontaminated** and should be destroyed.
- Eye Contact:** Immediately flush eyes with running water for a minimum of 15 minutes. Hold eyelids open during flushing. If irritation persists repeat flushing and **obtain medical attention IMMEDIATELY**.
- Ingestion:** **Do NOT induce vomiting**. In general, no treatment is necessary unless large quantities of product are ingested. However, if conscience, wash out their mouth with water then give 1 or 2 glasses of water to drink. Refer person to medical personnel for immediate attention.
- Note to Physicians:** In general, emesis induction is unnecessary in high viscosity, low volatility products, e.g. Neat Epoxy Resins. However, symptomatic and supportive therapy may be needed following severe exposure. In such cases, medical follow-up should be maintained for at least 48 hours.

**Section 5 - Fire Fighting Measures**

- Fire and Explosion Hazards:** Containers may burst under intense heat Due to reaction with water, a hazardous build-up of pressure could result if contaminated containers are re-sealed.
- Extinguishing Media:** Carbon dioxide, dry chemical, or appropriate foam. If water is used, very large quantities are required. Reaction between water and hot isocyanate may be vigorous. Contain runoff water with temporary barriers.
- Fire Fighting Protective Equipment:** Use self-contained breathing apparatus and full protective clothing (Bunker gear).
- Flash Point:** 485°F (252°C) (setaflash)
- Flammable Limits (Lower):** Not available.
- Flammable Limits (Upper):** Not available.
- Auto Ignition Temperature:** Not Available
- Decomposition Temperature:** ~600°F (315°C)
- Rate of Burning:** Not available.
- Explosive Power:** None
- Sensitivity to Mechanical Impact:** None.
- Sensitivity to Static Discharge:** None.
- Decomposition Products:** Carbon monoxide, Aldehydes, Acids, and other organic substances may be formed during the combustion or thermal or oxidative decomposition. Reaction with some curing agents may produce considerable heat (exotherm). Run-a-way cure reaction may char and decompose the resin system, generating unidentified fumes and vapors, which may be toxic.

**Section 6 – Accidental Release Measures**

**For major spills call Chemtrec (800) 424-9300.**

**Spills, Leaks, or Releases:** Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Evacuate the area. Prevent further leakage, spillage or entry into drains. Contain and absorb large spillages onto an inert, non-flammable adsorbent carrier (such as earth or sand). Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spillage area clean with liquid decontaminant. Remove and dispose of residues. Notify applicable government authorities if release is reportable. **Small Spills:** Take up with an absorbent material and dispose of properly.

**Section 7 – Special Precautions**

Emptied containers can contain hazardous product residues. Handle in accordance with the hazard potential of curing agent (s) used. Avoid contact with eyes, avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, **can not be decontaminated** and should be destroyed.

**WARNING:** may cause skin and eye irritation. May cause skin sensitization. Minimize bodily contact. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Heating this material above 300°F in the presence of air may cause slow oxidative decomposition. Above 500°F, polymerization may occur. Some curing agents, eg. Aliphatic amines can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. **DO NOT BREATHE FUMES.** Use a NIOSH-approved respirator

**Section 8 – Handling and Storage**

**Handling:** Avoid personal contact with the product or reaction mixture. Use only with adequate ventilation to ensure that the defined occupational exposure limit is not exceeded. The efficiency of the ventilation must be monitored regularly because of the possibility of blockage. Avoid breathing aerosols, mists and vapors. When the product is sprayed or heated, an approved MSHA/NIOSH positive-pressure, supplied-air respirator may be required.

**Storage Requirements:** Keep containers properly sealed and when stored indoors, in a well ventilated area. Keep contents away from open flames and high temperatures.

**Storage Temperature:** Ideal storage temperature is 16-38°C (60-100°F)

**Shelf life:** 12 months @ 77°F (25°C).

**Section 9 – Exposure Controls/Personal Protection****PREVENTIVE MEASURES:**

Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

**Engineering Controls:** Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. Follow guidelines in the ACGIH publication "Industrial Ventilation".

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Chemical safety goggles. If there is a potential for splashing, use a full-face shield.

**Skin Protection:** The following protective materials are recommended. Gloves - neoprene, nitrile-butadiene rubber, butyl rubber. Thin disposable gloves should be avoided for repeated or long term use. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

**Respiratory protection:** Not ordinarily required

**Protective Clothing:** Avoid contact with eyes, Wear safety goggles as appropriate. Wear chemical resistant clothing as required to minimize contact

**Section 10 – Chemical and Physical Properties**

**Chemical Name:**..... Bisphenol A/Epichlorohydrin Epoxy Resin  
**Chemical Family:**..... Epoxy Resin  
**Molecular Formula:** ..... Not applicable (mixture)  
**Appearance:** ..... RED Pigmented Paste  
**Odor:**..... Sweet Odor  
**Vapor Pressure (mm Hg at 20°C):**..... < 1  
**Vapor Density (Air=1):** ..... Not Available  
**Boiling Point:** ..... Not Established  
**Melting Point:** ..... Below 77°F (25°C)  
**Solubility (Water):**..... Negligible  
**Bulk Density:**..... ~ 10.2 Lbs. Per Gallon  
**Specific Gravity**..... 1.225  
**Formula Weight per Volume** ..... 10.1939 LBS / GAL  
**VOC, % weight** ..... < 1

**Section 11 – Stability and Reactivity**

**Hazardous Decomposition Products:** Carbon monoxide, aldehydes, acids, and other organic substances may be formed during the combustion or thermal or oxidative decomposition. Reaction with some curing agents may produce considerable heat (exothermic). Run-A-Way cure reactions may char and decompose the resin system, generating unidentified fumes and vapors which may be toxic.

**Chemical Stability:** Stable at room temperature.

**Conditions to Avoid:** Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases, especially primary and secondary aliphatic amines.

**Section 12 – Toxicology Information****ACUTE TOXICITY DATA**

	<u>Acute Oral LD50</u>	<u>Acute Dermal LD50</u>	<u>Acute Inhalation LD50</u>
(1) Bis A epichlorohydrin:	11.4g/kg (rat)	<20g/kg (Rabbit)	No Deaths, SAT. Air, 8 hr

**POTENTIAL HEALTH EFFECTS:**

**Inhalation:** Not expected to be relevant route of exposure. However, high vapor or aerosol mist concentrations may be irritating to the nose, throat and upper respiratory tract.

**Skin Contact:** Moderate irritant. Repeated and/or prolonged contact may cause skin sensitization.

**Eye Contact:** The aerosol, vapor or liquid will irritate human eyes following contact.

**Ingestion:** Ingestion may cause irritation of the gastrointestinal tract. This product is considered to have a low order of acute oral toxicity.

**Chronic Effects:** Repeated contact can cause skin sensitization. Preexisting skin, eye, and respiratory may be aggravated by exposure to this product.

**Carcinogenicity:** Epichlorohydrin, CAS 106-89-8, an impurity in this product, (< 50 PPM), has been reported to produce cancer in laboratory animals and to produce mutagenic changes in bacteria and cultured human cells. It has been established by the International Agency for Research on Cancer (IARC) as a probable human carcinogen (IARC Group 2A) based on the following conclusions: Human evidence-inadequate; animal evidence – sufficient. It has been classified as an anticipated human carcinogen by the National Toxicology Program (NTP).

**Mutagenicity:** There is no substantial evidence of mutagenic potential.

**Reproductive Effects:** No adverse reproductive effects are anticipated.

**Teratogenicity and Fetotoxicity:** No information is available and no adverse teratogenic embryotoxic effects are anticipated.

**Section 13 – Ecological Information**

**Environmental Release Information:** Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

**Section 14 – Disposal Considerations**

The generation of waste should be avoided or minimized wherever possible.

Disposal should be in accordance with local, state, provincial or national regulations. This material is not a hazardous waste under RCRA 40 CFR 261. Small quantities should be treated with a liquid decontaminant. The treated waste is not a hazardous material under RCRA 40 CFR 261. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

**Section 15 – Transportation Information**

**DOT:** Not hazardous by DOT regulations  
**DOT Proper Shipping Name:** None  
**Other Requirements:** None

**Section 16 – Regulatory Information**

This product contains NONE of the reportable listed substances on the EPA / TSCA inventory of chemicals in accordance with SARA Title III, Section 313, of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

**Section 17 – Other Information**

HMIS Rating: Health: 2 Flammability: 1 Reactivity: 0  
 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

***NOTICE:*** While the descriptions, designs data, and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. It is provided independently of any sale of the product for purpose of hazard communication as part of E.V. Roberts' product safety program. Many factors may affect processing or application/use. We recommend you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties or merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sales. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by E.V. Roberts hereunder are given gratis and E.V. Roberts assumes no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. E.V. Roberts does not undertake to furnish advice on such matters.

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