



Safety Data Sheet

RF-21 Epoxy Curing Agent

Section 1. Identification

Product Identifier RF-21 Epoxy Curing Agent
Synonyms N/A
Manufacturer Stock Numbers N/A

Recommended use N/A
Uses advised against N/A

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

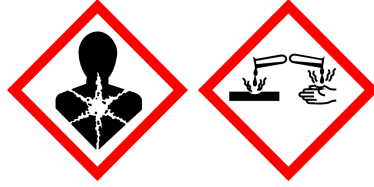
Website
<http://www.evroberts.com>

Section 2. Hazards Identification

Classification CARCINOGENICITY - Category 2
EYE DAMAGE/IRRITATION - Category 1
SENSITIZATION - RESPIRATORY - Category 1A
SENSITIZATION - SKIN - Category 1A
SKIN CORROSION/IRRITATION - Category 1C
SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (Single Exposure) - Category 2
TOXIC TO REPRODUCTION - Category 2

Signal Word Danger

Pictogram



Hazard Statements

Causes damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if no other routes of exposure cause the hazard)
Causes serious eye damage
Causes severe skin burns and eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause damage to organs (or state all organs affected if known) (state route of exposure if no other routes of exposure cause the hazard)
Suspected of causing cancer (state route of exposure if no other routes of exposure cause the hazard)
Suspected of damaging fertility or the unborn child. (state specific effect if known) (state route of exposure if no other routes of exposure cause the hazard)

Precautionary Statements

Response

Get medical advice/attention if you feel unwell.
If experiencing respiratory symptoms: Call a poison center/doctor/ ...
If exposed or concerned: Call a poison center/doctor/...
If exposed or concerned: 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: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
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 skin irritation or rash occurs: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Immediately call a poison center/doctor/ ...
Specific treatment (see ... on this label)
Wash contaminated clothing before reuse.

Prevention

Avoid breathing dust/fume/gas/mist/ vapors/spray.
Contaminated work clothing must not be allowed out of the workplace.
Do not breathe dust/fume/gas/mist/ vapors/spray.
Do not eat, drink or smoke when using this product.
Do not handle until all safety precautions have been read and understood.
In case of inadequate ventilation wear respiratory protection.
Obtain special instructions before use.
Wash ...thoroughly after handling.
Wear eye protection/face protection.
Wear protective gloves.
Wear protective gloves/protective clothing/eye protection/face protection.

Storage

Store locked up.

Disposal

Dispose of contents/container to ...

Ingredients of unknown toxicity 0%

Hazards not Otherwise Classified

No Data Available

Section 3. Ingredients

| CAS | Ingredient Name | Weight % |
|-----------|---------------------------------------|----------|
| 80-05-7 | Phenol, 4,4'-(1-methylethylidene)bis- | Unknown |
| 111-40-0 | 1,2-Ethanediamine, N-(2-aminoethyl)- | Unknown |
| 2426-08-6 | Oxirane, (butoxymethyl)- | Unknown |

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

Section 4. First-Aid Measures

Additional Information

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes.

Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse.

Clean shoes thoroughly before reuse. Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must

be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Decomposition products may include the following materials: carbon oxides nitrogen oxides other organic compounds

Special protective actions for firefighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Unsuitable Extinguishing Media

N/A

Section 6. Accidental Release Measures

Small Spills

Stop leak if without risk. Move containers from spill area. For molten material, allow the product to cool and solidify. Vacuum or sweep up material and place in a designated, labeled appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

Additional Information

Protective measures : Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Advice on

general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, : Store in accordance with local regulations. Store in original container

Section 8. Exposure Controls/Personal Protection

| Occupational Exposure Limits | Ingredient Name | ACGIH TLV | OSHA PEL | STEL |
|------------------------------|---------------------------------------|---|----------|------|
| | Phenol, 4,4'-(1-methylethylidene)bis- | N/A | N/A | N/A |
| | 1,2-Ethanediamine, N-(2-aminoethyl)- | 1ppm, 4mg/m3 Time Weighted Average (TWA) | N/A | N/A |
| | Oxirane, (butoxymethyl)- | Time Weighted Average (TWA) OSHA Z1, PEL 50 ppm, 270 mg/m3, OSHA Z1A, PEL 25 ppm, 135 mg/m3 | N/A | N/A |

Personal Protective Equipment
Additional Information

Goggles, Gloves

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator

Section 9. Physical and Chemical Properties

| | |
|---------------------------------------|----------------|
| Physical State | Viscous Liquid |
| Color | Reddish-Brown |
| Odor | Amine |
| Odor Threshold | N/A |
| Solubility | N/A |
| 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 | N/A |
| FP Method | N/A |
| pH | N/A |
| Melting Point | N/A |
| Boiling Point | N/A |
| 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 | N/A |
| Vapor Density | N/A |

Section 10. Stability and Reactivity

Additional Information Reactivity : Stable under normal conditions.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Strong oxidizer, Keep away from heat, sparks, flame and other ignition sources. Exposure to water vapour.

Incompatible materials : strong acids, strong oxidizing agents,

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Additional Information Not available

Section 12. Ecological Information

Additional Information Not available

Section 13. Disposal

WASTE DISPOSAL METHOD: Dispose of in accord with local, state and federal regulations

Section 14. Transport Information

UN Number 2735

UN Proper Shipping Name POLYAMINES, LIQUID, CORROSIVE, N.O.S. (DIETHYLENETRIAMINE)

DOT Classification 8

Packing Group II

Section 15. Regulatory Information

Additional Information U.S. Federal regulations : United States - TSCA 12(b) - Chemical export notification: None required. United States - TSCA 5(a)2 - Final significant new use rules: Not listed United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed United States - TSCA 5(e) - Substances consent order: Not listed

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

California Prop. 65: : WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

United States inventory (TSCA 8b)
: All components are listed or exempted.

Canada

WHMIS (Canada) : Class D-1A: Material causing immediate and serious toxic effects (Very toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic). Class E: Corrosive material

Canadian lists

Canadian NPRI : The following components are listed: Phenol, 4,4'-(1-methylethylidene)bis-

CEPA Toxic substances : None required.

International regulations

International lists : Australia inventory (AICS): All components are listed or exempted. Canada inventory: All components are listed or exempted. Japan inventory: All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Korea inventory: All components are listed or exempted. New Zealand Inventory (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): Not determined. United States inventory (TSCA 8b): All components are listed or exempted. Taiwan inventory (CSNN): All components are listed or exempted.

Section 16. Other Information

Revision Date

7/8/2018

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