

MATERIAL SAFETY DATA SHEET

1. Product Information

Product Name: ER Coal Tar™ Epoxy Part B Hardener

Chemical Family: Cycloaliphatic Amine Blend

Product Code: ER030-B

2. Composition/Information on Ingredients

Chemical Name	CAS Number	Wt %	Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL
Amines		45-65	N/E	N/E (Not established)
Coal Tar	8007-45-2	20-50	0.2 mg/m ³	0.2 mg/m ³

The specific chemical identity of this product is being held as trade secret information in accordance with 29 CR 1910.1200

3. Health Hazards

Primary Routes of Exposure: Eyes: Yes Skin: Yes Inhalation: Yes **Eye Contact:** Corrosive liquid. Cause severe irritation and may cause burn. **Skin Contact:** Corrosive liquid. Cause irritation and sensitization. Symptoms can be immediate or delayed several hours. **Inhalation:** Can cause respiratory tract irritation. **Ingestion:** Can cause nausea, headache, and gastrointestinal irritation. **Other:** Preexisting skin sensitization may be aggravated by exposure to this product.

4. First Aid Measures

Eyes: Flush eyes thoroughly with water for at least 15 minutes while holding eyelids open. Seek medical attention. **Skin:** Remove contaminated clothing. Wipe excess from skin and wash the affected area thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. **Inhalation:** Remove to fresh air, and provide oxygen or artificial respiration if needed. Obtain medical attention; symptoms can be delayed up to several hours. **Ingestion:** DO NOT induce vomiting. Give 1-2 cups of water or milk unless the person is drowsy, convulsing, or unconscious. Get medical attention.

5. Fire Fighting Measures

Flammable Properties: Flash Point: >240°F MCC) Explosive Limits: Not applicable Auto-Ignition Temperature: Not applicable
Hazardous Decomposition Products: Oxides of nitrogen, carbon monoxide, carbon dioxide and other organic materials. **EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTIONS:** When sufficiently large quantities are present, firefighters should be equipped with full bunker gear, including a positive pressure, NIOSH approved, self-contained breathing apparatus. Extreme heat or water contamination may cause closed containers to explode. **Extinguishing Media:** Use carbon dioxide, dry chemical, or appropriate foam.

6. Accidental Release Measures

Ventilate the spill area and evacuate if necessary. Remove all ignition sources. Dike and contain large spills. Flush area with water spray. Clean-up personnel should use adequate protective equipment.

7. Handling and Storage

Store in a cool, dry place, in closed containers at room temperature. Avoid contact with incompatible materials. Wear protective eyewear, chemical-resistant gloves, and other protective clothing as appropriate.

8. Exposure Control and Personal Protection

Engineering/Ventilation Controls: Effective engineering controls should be used whenever possible to eliminate and/or reduce worker exposure to all respiratory hazards. General ventilation, local ventilation, or isolation may prove adequate to keep airborne concentration below exposure limits. **Respiratory Protection:** If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained breathing apparatus is required. **Skin Protection:** Impervious gloves and protective clothing should be worn as necessary. **Eye Protection:** Chemical splash goggles or safety glasses with side shields should be worn as appropriate.

9. Stability and Reactivity

Chemical Stability: Stable under normal conditions and use. **Conditions and Materials to Avoid:** Reacts with epoxy and strong oxidizing agents. **Hazardous Polymerization:** Will not occur.

10. Physical and Chemical Properties

Appearance/Odor: black liquid, tar like; Boiling Point: 150F/68C; Vapor Pressure (mm Hg): <1 @ 25°C; Vapor Density (air=1): >1; Specific Gravity: 1.06; Solubility in Water: negligible

11. Toxicological Information

Acute Toxicity Data: Not available

Chronic Toxicity Data: Not Available

12. Disposal Considerations

Keep out of surface waters, sewers and waterways entering or leading to surface waters. Notify authorities if any exposure to the environmental occurs or is likely to occur. Utilize an appropriate disposal facility, in compliance with applicable federal, state and local environmental control regulations.

Product Name: ER Coal Tar Epoxy Part B Hardener

13. Transportation Information

DOT/IATA Proper Shipping Name: Amines, Liquid, Corrosive, NOS (Aliphatic Amine); Hazard Class: 8; UN 2735; PG :III Hazardous Label: Corrosive

14. Regulatory Information

TSCA: The chemical components of this product are included in the TSCA Chemical Substance Inventory, as required.

SARA Title III: Section 313 - Toxic Chemicals: Naphthalene, CAS# 91-20-3 1% Anthracene CAS# 120-12-7 0.2% Dibenzofuran CAS# 132-64-9 0.15% Benzene CAS# 71-43-2 0.01% Polycyclic Aromatic Compound Category CAS#: None

Section 311/312 - Hazard Categories: Fire Hazard: No Reactivity Hazard: No Sudden Release of Pressure Hazard: No
Immediate (Acute) Health Hazard: Yes Delayed (Chronic) Health Hazard: No OSHA Hazard Communication Standard Hazard Classes:
Corrosive

NFTPA Hazards: Health 2; Flammability: 1, Reactivity: 0 **HMIS Hazards:** Health: 2, Flammability: 1, Reactivity: 0

NOTICE: The information presented herein is based on the data available to us and is believed to be correct as of the date prepared. However, no liability whatsoever is assumed. It is the buyer's responsibility to determine the suitability of the product and the results obtained from its use. The manufacturer assumes no responsibility for injury resulting from the use of the product described herein.

MATERIAL SAFETY DATA SHEET

1. Product Information

Product Name: ER Coal Tar™ Epoxy Part A Resin Chemical Family: Epoxy Resin Mixture Product Code: ER030-A

2. Composition/Information on Ingredients

Chemical Name	CAS Number	Percent	Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL
Epoxy Resin		100	N/E	N/E (Not established)

Specific ingredients of this product are withheld and considered a trade secret.

3. Health Hazards

Primary Routes of Exposure: Eyes: Yes Skin: Yes Eye Contact: May cause irritation and swelling. Skin Contact: May cause irritation and sensitization. Symptoms can be immediate or delayed several hours. Inhalation: May cause irritation and temporary or permanent sensitization. Ingestion: May cause irritation. Other: Preexisting skin sensitization may be aggravated by exposure to this product.

4. First Aid Measure

Eyes: Flush eyes thoroughly with water for at least 15 minutes while holding eyelids open. Seek medical attention. **Skin:** Remove contaminated clothing. Wipe excess from skin and wash the affected area thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. **Inhalation:** Remove to fresh air, and provide oxygen or artificial respiration if needed. Obtain medical attention; symptoms can be delayed up to several hours. **Ingestion:** DO NOT induce vomiting. Give 1-2 cups of water or milk unless the person is drowsy, convulsing, or unconscious. Get medical attention.

5. Fire Fighting Measures

Flammable properties: Flash point: >300 °F (closed cup) Explosive limits: Not available Auto-Ignition Temperature: Not available
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes, and other organic substances.
EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical, or appropriate foam.

6. Accidental Release Measure

Ventilate the spill area and evacuate if necessary. Remove all ignition sources. Dike and contain large spills. Clean-up personnel should use adequate protective equipment.

7. Handling and Storage

Store in a cool, dry place, in closed containers at room temperature. Avoid contact with incompatible materials. Wear protective eyewear, chemical-resistant gloves, and other protective clothing as appropriate.

8. Exposure Control and Personal Protection

Engineering/Ventilation Controls: Effective engineering controls should be used whenever possible to eliminate and/or reduce worker exposure to all respiratory hazards. General ventilation, local ventilation, or isolation may prove adequate keep airborne concentrations below exposure limits.
Respiratory Protection: If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained breathing apparatus is required. **Skin Protection:** Impervious gloves and protective clothing should be worn as necessary. **Eye Protection:** Chemical splash goggles or safety glasses with side shields should be worn as appropriate.

9. Stability and Reactivity

Chemical Stability: Stable under normal conditions and use. **Conditions and Materials to Avoid:** Reacts with amines and strong oxidizing agents.
Hazardous Polymerization: Will not occur.

10. Physical and Chemical Properties

Appearance/Odor: Beige paste, slight ether odor. **Boiling Point:** Not determined **Vapor Pressure (mm Hg):** <1 @ 25°C
Vapor Density: (air=1): >1 **Specific Gravity:** 1.19 **Solubility in Water:** None

11. Toxicological Information

This section provides toxicological information with regard to the pure form of the component indicated. It is suggested that persons trained in its evaluation interpret this information. **Epoxy Resins:** Acute Oral LD50 (Rat): 11.4 g/kg Acute Dermal LD50 (Rabbit): >20 g/kg

12. Disposal Consideration

Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the environment occurs or is likely to occur. Utilize an appropriate disposal facility, in compliance with applicable federal, state and local environmental control regulations.

13. Transportation Information

DOT/IATA Proper Shipping Name: Not regulated.

14. Regulatory Information

TSCA: The chemical components of this product are included in the TSCA Chemical Substance Inventory, as required.

SARA Title III: Section 313 - Toxic Chemicals: None

Section 311/312 - Hazard Categories: Fire Hazard: No Reactivity Hazard: No Sudden Release of Pressure Hazard: No Immediate

(Acute) Health Hazard: Yes Delayed (Chronic) Health Hazard: No

NFPA Hazards: Health: 2 Flammability: 1 Reactivity: 0 **HMIS Hazards:** Health: 2 Flammability: 1 Reactivity: 0

date of prepn: 1/18/07

Manufactured by: ERC in RI

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