

MATERIAL SAFETY DATA SHEET

1. Product Information

Product Name: Crack Cure™ Part B Curing Agent Chemical Family: Epoxy Resin Product Code: ER7103-B

2. Composition/Information on Ingredients

Chemical Name	CAS Number	Percent	Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL
Aliphatic Amines		> 70	N/E	N/E (Not established)
Nonylphenol		< 30	N/E	N/E

3. Health Hazards

Eye Contact: Cause severe irritation and may cause burns. **Skin Contact:** Causes 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: >200°F (PMCC) **Explosive Limits:** Not applicable **Auto-Ignition Temperature:** Not applicable **Hazardous Decomposition Products:** Oxides of nitrogen, carbon monoxide, carbon dioxide, and other organic substances **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. 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 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 epoxy and strong oxidizing agents. **Hazardous Polymerization:** Will not occur.

10. Physical and Chemical Properties

Appearance/Odor: Clear liquid, ammoniacal odor **Boiling Point:** Not determined **Vapor Pressure (mm Hg):** <1 @ 25°C **Vapor Density (air=1):** >1 **Specific Gravity:** 0.96 **Solubility in Water:** Slightly soluble

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 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 and Regulatory Information

DOT/IATA Proper Shipping Name: Amines, Liquid, Corrosive, NOS (Aliphatic Amines) Hazard class 8 UN1760 PG III **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 - 3, Flammability - 1, Reactivity - 0 **HMS Hazards:** Health - 3, Flammability - 1, Reactivity - 0

date of prepn: 1/15/04 Manufactured by: ERC in RI
Distributed by: Progressive Epoxy Polymers - 48 Wildwood Drive - Pittsfield, NH 03263 - Tel: 603-435-7199 - Fax: 603-435-7182

MATERIAL SAFETY DATA SHEET

1. Product Information

2. Composition/Information on Ingredients

Chemical Name	CAS	Percent	Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL
Epoxy Resin Mixture		>30	N/E	N/E
Titanium Dioxide*		<20	10 mg/m3	15 mg/m3 (Not established)
Carbon Black*		<1	3.5 mg/m3	3.5 mg/m3
Fumed Silica*		>10	20 mppcf	20mppcf
Inert Fillers*		>40	10 mg/m3	10 mg/m3
Aromatic Hydrocarbon		<10	N/E	N/E

* Materials are in Non-Airborne Form

3. Health Hazards

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 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

Flash Point: >300°F (PMCC) **Explosive Limits:** Not applicable **Auto-Ignition Temperature:** Not applicable **Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, aldehydes and other organic materials **Extinguishing media:** Use carbon dioxide, dry chemical, or appropriate foam. **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.

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 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 epoxy and strong oxidizing agents. **Hazardous Polymerization:** Will not occur

10. Physical and Chemical Properties

Appearance/Odor: Gray paste, slight ether odor **Boiling Point:** Not determined **Vapor Pressure (mm Hg):** <1 @ 25°C **Vapor Density (air=1):** >1 **Specific Gravity:** 1.3-1.6 **Solubility in Water:** None

11. Toxicological Information

Epoxy Resins: Acute Oral LD50 (rat): 11.4 g/kg Acute Dermal LD50 (rabbit): >20 g/kg

12. Disposal Considerations

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 regs.

13. Transportation and Regulatory Information

DOT/IATA Proper Shipping Name: Not Regulated
 TSDCA: 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. OSHA Hazard Communication Standard Hazard Classes: Corrosive NFPA Hazards: Health - 2, Flammability - 1, Reactivity - 0 HMIS hazards: Health - 2, Flammability - 1, Reactivity - 0

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