

MATERIAL SAFETY DATA SHEET

DATE: 02/12/02

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Section 1

PACER TECHNOLOGY
9420 Santa Anita Avenue
Rancho Cucamonga, CA 91730

HAZARD RATING
1
2 x 0

For Chemical Emergency Only:

In the US & Canada (800) 424-9300
Int'l & Wash DC (COLLECT) (202) 483-7616
Telephone for Information: (909) 987-0550

PRODUCT IDENTIFICATION: Z-Poxy 30 Minute Formula - Resin - Part A

Section 2 - HAZARDOUS INGREDIENTS INFORMATION:

Hazardous Components (Common Names, CAS Number)	OSHA PEL	ACGIH TLV	OTHER LIMITS	% OPTION
Bisphenol A/Epichlorohydrin based epoxy resin* (25068-38-6)	NE	NE	NE	60-100%

* This product is an epoxy resin produced by the condensation reaction of Epichlorohydrin and Bisphenol-A. These raw materials are consumed in the process. Residual levels of Epichlorohydrin are controlled to 1ppm, max, in the product.

Section 3 - PHYSICAL/CHEMICAL CHARACTERISTICS:

Boiling Point: >500F Specific Gravity (H₂O=1): 1.17
Vapor Density (Air=1): NA Melting Point: NE
Vapor Pressure (mm Hg): 0.03 @ 77F Evaporation Rate (Butyl Acetate = 1): NA
Solubility in Water: Negligible.
Appearance & Odor: Light yellow colored viscous liquid.

Section 4 - FIRE AND EXPLOSION HAZARD DATA:

Flash Point (Method Used): 480F (PMCC) Flammable Limits: LEL: NE UEL: NE

Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet/face shield, bunker coat, gloves & rubber boots). Use positive pressure NIOSH-approved self-contained breathing apparatus. Cool fire exposed containers with water.

Unusual Fire and Explosion Hazards: Heating of resin above 300F in presence of air may cause slow oxidative decomposition. Above 500F polymerization may occur. Some curing agents, e.g. aliphatic amines can produce exothermic reactions which in large masses can cause runaway polymerization & charring of reactants. Fumes & vapors from these thermal & chemical decompositions vary widely in composition/toxicity. DO NOT BREATHE FUMES. Unidentified fumes & vapors may be toxic.

Section 5 - REACTIVITY DATA:

Stability: Stable XX Conditions to Avoid: Keep away from open flames & high temperatures.

Incompatibility (Materials to Avoid): Strong oxidizing agents, strong Lewis or mineral acids, strong mineral & organic bases, esp. primary & secondary aliphatic amines.

Hazardous Decomposition Products: Carbon monoxide, aldehydes, acids & other organic substances may be formed during combustion (>500F) temperature degradation.

Hazardous Polymerization: May Occur ___ May Not Occur XX (Avoid heating >300F).

Section 6 - HEALTH HAZARD DATA:

Route(s) of Entry: Inhalation: YES Skin: YES Ingestion: YES

Health Hazards (Acute and Chronic):

Product moderately irritating to eyes, skin; contact with product at elevated temperatures can result in thermal burns; may cause skin sensitization; low order of acute oral toxicity noted; unlikely to be inhalation hazard due to low volatility.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

First Aid Procedures:

Eye contact - irritation: flush eyes with copious amounts of water for 15 min. while holding eyes open. Get medical attention immediately.

Skin contact - irritation/rash: remove contaminated clothing and wash with soap/water. Get medical attention if symptoms persist (contaminated leather articles i.e. shoes should be disposed of as contaminated waste). NOTE: hot product burns require immediate medical attention.

Inhalation - Remove to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Ingestion - Do not induce vomiting. In general, no treatment unless large amount is ingested, however, get medical advice.

NOTE TO PHYSICIAN: Emesis induction is normally not necessary in high viscosity, low volatility products, e.g. neat epoxy resins.

Medical Conditions Generally Aggravated by Exposure: Pre-existing eye/skin disorders or lung allergies.

Section 7 - PRECAUTIONS FOR SAFE HANDLING AND USE:

Steps to Be Taken in Case Material is Released or Spilled: Product may burn although not readily ignitable. Use cautious judgment when cleaning up large spills. Respirator and protective equipment as appropriate. Dike and contain material. Soak up residue with absorbent (clay, sand) materials and dispose of properly.

Waste Disposal Method: If product becomes waste, not considered hazardous waste by RCRA criteria (40 CFR 261). Dispose of according to federal, state and local regulations.

Precautions to Be Taken in Handling and Storing: Store in cool, dry place away from open flames and high temperatures.

Other Precautions: Empty containers may contain product residues & should be disposed of properly.

Section 8 - CONTROL MEASURES:

Respiratory Protection (Specify Type): Organic vapor respirator in areas with poor ventilation.

Ventilation: Local Exhaust: Good Mechanical (General): As needed.

Protective Clothing or Equipment: Safety glasses/goggles with side shields, chemically resistant gloves and other protective equipment to avoid direct contact.

Work/Hygienic Practices: Avoid contact with eyes or skin. Use in well ventilated area. Wash hands with soap and water after product use. Launder contaminated clothing before reuse and disposed of leather articles as contaminated waste.

NA = Not applicable

NE = Not established

The data contained herein is based upon information that Pacer Technology believes to be reliable. Users of this product have the responsibility to determine the suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, express or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

MATERIAL SAFETY DATA SHEET

DATE: 2/12/02

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Section 1

For Chemical Emergency Only:

PACER TECHNOLOGY

HAZARD RATING

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3 x 1

Telephone for Information:

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PRODUCT IDENTIFICATION: Z-Poxy 30 Minute Formula - Hardener - Part B**Section 2 - HAZARDOUS INGREDIENTS INFORMATION:**

Hazardous Components (Common Names, CAS Number)	OSHA PEL	ACGIH TLV	OTHER LIMITS	% OPTION
Proprietary Mercaptan Polymer	NE	NE	NE	60-100
Tertiary Amine (90-72-2)	NE	NE	NE	5-10
Tris (Dimethyl Aminomethy) Phenol Trihexoate	NE	NE	NE	1-5
Phenol + (108-95-2)	5ppm	5ppm (skin)		*=<65ppm
Formaldehyde + (50-00-0)	1ppm	1ppm		*=<50ppm

*=< means equal to or less than.

+ This ingredient is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act of 1986 (SARA) and 40 CFR 372.

Section 3 - PHYSICAL/CHEMICAL CHARACTERISTICS:

Boiling Point: NE	Specific Gravity (H ₂ O=1):	1.13
Vapor Density (Air=1): NE	Melting Point:	NA
Vapor Pressure (mm Hg): NE	Evaporation Rate (Butyl acetate = 1):	NE
Solubility in Water: Slightly soluble.		
Appearance & Odor: Viscous water white to light yellow liquid with mercaptan odor.		

Section 4 - FIRE AND EXPLOSION HAZARD DATA:

Flash Point (Method): 300 F (TCC) Flammable Limits: LEL: NE UEL: NE

Extinguishing Media: Water spray, carbon dioxide, foam or dry chemical.Special Fire Fighting Procedures: Cool exposed containers with water spray. Wear self-contained breathing apparatus in confined areas.Unusual Fire and Explosion Hazards: None known.**Section 5 - REACTIVITY DATA:**Stability: Stable XX Conditions to Avoid: Storage near large masses of epoxy resins.Incompatibility (Materials to Avoid): Strong oxidants, amines especially when hot.Hazardous Decomposition Products: Carbon monoxide/dioxide, hydrogen sulfide and oxides of sulfur.Hazardous Polymerization: May Occur ___ May Not Occur XX**Section 6 - HEALTH HAZARD DATA:**Route(s) of Entry: Inhalation: Yes Skin: Yes Ingestion: YesHealth Hazards (Acute and Chronic):

Acute - irritates skin, eye & respiratory tract.

Chronic - May aggravate pre-existing skin/eye/lung conditions.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

First Aid Procedures:

Eye contact - Irritation: immediately flush eye with copious amounts of water for 15 minutes. Get medical attention.

Skin contact - Irritation upon direct contact. Remove contaminated clothing and wash affected areas with soap and water.

Inhalation - Remove to fresh air. Administer oxygen if available.

Ingestion - Do not induce vomiting. Keep airway clear if vomiting occurs.

Medical Conditions Generally Aggravated by Exposure: Pre-existing skin/eye/lung conditions.

Section 7 - PRECAUTIONS FOR SAFE HANDLING AND USE:

Steps to Be Taken in Case Material is Released or Spilled: Stop leaks & contain spill. Soak up with absorbent material for disposal in proper container, wearing adequate protective clothing/respiratory protection.

Waste Disposal Method: In chemical landfill or incinerate in accordance with federal, state or local regulations.

Precautions to Be Taken in Handling and Storing: Do not store near epoxy resin, protect containers to avoid leaks and spills.

Other Precautions: CAUTION - May cause irritation. Avoid direct contact or breathing of mist or vapor. Use with adequate ventilation and use respiratory protection where mist or vapor may be generated. For industrial use only. Keep containers closed when not in use.

Section 8 - CONTROL MEASURES:

Respiratory Protection (Specify Type): Organic vapor respirator to avoid inhalation of mist or vapor.

Ventilation: Local Exhaust: Good Mechanical (General): As needed.

Protective Clothing or Equipment: Safety glasses/goggles with side shields, rubber gloves, chemical resistant shoes and protective clothing to avoid direct contact.

Work/Hygienic Practices: Avoid direct contact or breathing of mist or vapor. Use with adequate ventilation. Wash hands with soap and water after use. Launder contaminated clothing before reuse. Do not take internally.

NE = Not established

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