

MATERIAL SAFETY DATA SHEET

DATE: 02/18/05

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Section 1

PACER TECHNOLOGY
9420 Santa Anita Avenue
Rancho Cucamonga, CA 91730

For Chemical Emergency Only:
In the US & Canada (800) 424-9300
Int'l & Wash DC (COLLECT) (703) 527-3887
Telephone for Information: (909) 987-0550

PRODUCT IDENTIFICATION: (PT-40)

HAZARD RATING

Z-Poxy Finishing Resin - Part A (Resin)

1
2 x 0

Section 2 - HAZARDOUS INGREDIENTS INFORMATION:

Hazardous Components (Common Names, CAS Number)	OSHA PEL	ACGIH TLV	OTHER LIMITS	% OPTION
Reaction products of epichlorohydrin & bisphenol A * (23085-99-8)				75-100
O-cresyl glycidyl ether (2210-79-9)				10-30

- This ingredient is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Section 3 - PHYSICAL/CHEMICAL CHARACTERISTICS:

Boiling Point: >500 F Specific Gravity (H₂O=1): 1.14
Vapor Density (Air=1): NA Melting Point: NE
Vapor Pressure (mm Hg): NA Evaporation Rate (Butyl acetate = 1): NA
Solubility in Water: Negligible.
Appearance & Odor: Transparent, water-white viscous liquid.

Section 4 - FIRE AND EXPLOSION HAZARD DATA:

Flash Point (Method): 485 F (PMCC) Flammable Limits: LEL: NE UEL: NE

Extinguishing Media: Dry chemical, foam or carbon dioxide.

Special Fire Fighting Procedures: 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 3000F in presence of air may cause slow oxidative decomposition. Above 5000F 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: Excessive heating over long periods of time degrades the resin.

Incompatibility (Materials to Avoid): Bases, acids, amines and oxidizing materials.

Hazardous Decomposition Products: The by-products expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water.

Hazardous Polymerization: May Occur ___ May Not Occur XX NOTE: Masses of more than 1 pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.

Section 6 - HEALTH HAZARD DATA:

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

Health Hazards (Acute and Chronic):

Acute - May cause eye irritation, skin irritation and irritation of respiratory tract is possible.

Chronic - Repeated exposure may cause skin sensitization.

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

First Aid Procedures:

Eye contact - 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. Prolonged or repeated contact can cause dermatitis in sensitive individuals. 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.

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 place into container for disposal.

Waste Disposal Method: Dispose of in accordance with local, state, and federal EPA regulations.

Precautions to Be Taken in Handling and Storing: Store in cool, dry place away from open flames, high temperatures and incompatible materials (including epoxy hardeners).

Section 8 - CONTROL MEASURES:

Respiratory Protection (Specify Type): A NIOSH approved vapor canister may be used to maintain vapor concentration below TLV.

Ventilation: Local Exhaust: To maintain vapor concentration below TLV.

Mechanical (General): As needed.

Protective Clothing or Equipment: Safety glasses/goggles with side shields, rubber gloves and apron to protect skin and clothing.

Work/Hygienic Practices: Wash hands with soap and water after use. Launder contaminated clothing before reuse.

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

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Section 1

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Telephone for Information: (909) 987-0550

PRODUCT IDENTIFICATION:**HAZARD RATING**

Z-Poxy Finishing Resin - Part B (Hardener)

1
3 x 0

Section 2 - HAZARDOUS INGREDIENTS INFORMATION:

Hazardous Components (Common Names, CAS Number)	OSHA PEL	ACGIH TLV	OTHER LIMITS	% OPTION
Benzyl Alcohol (100-51-6)	NE	NE		20-40
Tetraethylenepentamine (112-57-2)	NE	NE		1-10
Tris-2,4,6-(Dimethylaminomethyl)Phenol (90-72-2)	NE	NE		10-15
Bis(DimethylAminomethy)Phenol (71074-89-0)	NE	NE		1-5
Isophoronediamine (2855-13-2)	NE	NE		3-5
Benzoic Acid (69-72-7)	NE	NE		0-1

+ 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 (H₂O=1): 1.04
 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: Yellow viscous liquid with ammonia odor.

Section 4 - FIRE AND EXPLOSION HAZARD DATA:

Flash Point (Method): >200 F (PMCC) Flammable Limits: LEL: NE UEL: NE

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

Special Fire Fighting Procedures: Cool exposed containers with water spray. Wear self-contained breathing apparatus and full bunker gear.

Unusual Fire and Explosion Hazards: May generate toxic or irritating combustion products. Sudden reaction and fire may result if mixed with an oxidizing agent.

Section 5 - REACTIVITY DATA:

Stability: Unstable __ Stable XX Conditions to Avoid: Storage near large masses of epoxy resins.

Incompatibility (Materials to Avoid): Oxidizing agents (perchlorates, nitrates, etc.), cleaning solutions such as sulfuric acid/dichromate, and aqua regia. A reaction accompanied by a large heat release occurs when product is mixed with acids, which could create heat sufficient to cause vigorous boiling thereby creating a splashing hazard.

Hazardous Decomposition Products: Carbon monoxide/dioxide in a fire. Ammonia when heated. Irritating and toxic fumes at elevated temperatures. Nitrogen oxides in a fire, which can react with water vapor to form corrosive nitric acid (TLV 2ppm). Combustion of product under oxygen-starved conditions can be expected to produce toxic products including nitriles and amides.

Hazardous Polymerization: May Occur __ May Not Occur XX

Section 6 - HEALTH HAZARD DATA:

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

Health Hazards (Acute and Chronic): Irritating to eyes, skin and respiratory tract. May cause skin sensitization. Inhalation causes irritation. Ingestion may cause bleeding and vomiting of blood.

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. Get medical attention.

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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