

Date Prepared: 4/30/2015

MSDS No: PT41-GHS - RESIN

Date-Revised: 5/5/2015

Revision No: 3

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Z-POXY FINISHING RESIN KIT 40Z - RESIN

MANUFACTURER

Pacer Technology 3281 E. Guasti Rd., Suite 260

Ontario, CA 91761

Emergency Contact: CHEMTREC **Emergency Phone:** 800-424-9300

Alternate Emergency Phone: 703-527-3887 Product Stewardship: 909-987-0550

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (800) 424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 2
Eye Irritation, Category 2
Skin Sensitization, Category 1
Mutagenicity, Category 2

Environmental:

Aquatic Toxicity, Category 3

GHS LABEL ELEMENTS

Non-Hazardous per vendor information.



nation I

Exclamation mark

Health hazard

SIGNAL WORD: WARNING HAZARD STATEMENTS

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H412: Harmful to aquatic life with long lasting effects.

H317: May cause an allergic skin reaction.

H341: Suspected of causing genetic defects.

PRECAUTIONARY STATEMENT(S)

Prevention:

5468C4VS: Contains epoxy consituents. May produce an allergic reaction.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P281: Use personal protective equipment as required.

P202: Do not handle until all safety precautions have been read and understood.



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 $P261: A void \ breathing \ dust/fume/gas/mist/vapours/spray.$

P264: Wash skin and hands thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

Response:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P363: Wash contaminated clothing before reuse.

Storage:

P405: Store locked up.

Disposal:

7944L5O1: Dispose of in a manner consistent with federal, state, and local regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear to pale yellow, transparent liquid

IMMEDIATE CONCERNS: Irritating to eyes/skin. May cause skin sensitization.

POTENTIAL HEALTH EFFECTS

EYES: Causes eye irritation. **SKIN:** May cause skin irritation.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing eye and skin disorders or lung allergies may be aggravated by exposure.

ROUTES OF ENTRY: Inhalation, ingestion and skin absorption are major routes of entry.

SENSITIZATION: May cause sensitization.

WARNING CAUTION LABELS: Harmful. Keep out of Reach of Children.

COMMENTS: Contains epoxy constituents. See information supplied by the manufacturer.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Bisphenol A/Epichlorohydrin based epoxy resin	75 - 100	25085-99-8
2,3-EPOXYPROPYL O-TOLYL ETHER	10 - 30	2210-79-9

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Irritation occurs upon direct contact. Remove contaminated clothing and wash affected areas with soap and water. Get medical attention if systems persist.

INGESTION: If swallowed, seek medical advice immediately and show this container or label.



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INHALATION: Remove to fresh air. Get medical attention if breathing is difficult.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, foam, carbon dioxide, dry chemicals.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: During combustion or elevated temperatures (>260 C) may form carbon monoxide, aldehydes, acids and other unidentified organic substances.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Scrape as much material as you can from the surface using a stiff metal or plastic scraper. Clean the residue with acetone or alcohol and place in a disposable container.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

7. HANDLING AND STORAGE

HANDLING: Avoid direct contact with eyes and prolonged contact with skin. Wash hands with soap and water after use.

STORAGE: Do not exceed 250 F (121 C) in use. Use in well ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: S36/37: Wear suitable protective clothing and gloves.

RESPIRATORY: S38: In case of insufficient ventilation, wear suitable respiratory equipment.

WORK HYGIENIC PRACTICES: Wash hands with soap and water after use. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Epoxy odor.

ODOR THRESHOLD: No data available

APPEARANCE: Clear Paste **COLOR:** Clear to pale yellow

pH: No data available

PERCENT VOLATILE: No data available

FLASHPOINT AND METHOD: 252°C to 458.6°C Pensky-Martens CC

FLAMMABLE LIMITS: No data available

AUTOIGNITION TEMPERATURE: No data available

VAPOR PRESSURE: No data available



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VAPOR DENSITY: (Air=1) **Notes:** No data available

BOILING POINT: No data available FREEZING POINT: No data available MELTING POINT: No data available

THERMAL DECOMPOSITION: No data available

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE: No data available

DENSITY: No data available SPECIFIC GRAVITY: 1.14 g/L VISCOSITY #1: 1500 Centipoise

MOLECULAR WEIGHT: No data available COEFF. OIL/WATER: No data available

COMMENTS: No data available

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

HAZARDOUS DECOMPOSITION PRODUCTS: The by products expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water.

INCOMPATIBLE MATERIALS: Strong acids and alkalis, reactive metals and strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE

NOTES: May cause eye irritation, skin irritation and irritation of respiratory tract.

CHRONIC: R68: Possible risk of irreversible effects.

SENSITIZATION: R43: May cause sensitization by skin contact.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Prevent product from entering drains or sewers in case of spill.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of following all Local Authority requirements for disposal.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: Not restricted



Date Prepared: 4/30/2015 MSDS No: PT41-GHS - RESIN Date-Revised: 5/5/2015 Revision No: 3

AIR (ICAO/IATA)

SHIPPING NAME: Not restricted

VESSEL (IMO/IMDG)

SHIPPING NAME: Not restricted

15. REGULATORY INFORMATION

UNITED STATES

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Bisphenol A/Epichlorohydrin based epoxy resin	25085-99-8
2,3-EPOXYPROPYL O-TOLYL ETHER	2210-79-9

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION

16. OTHER INFORMATION

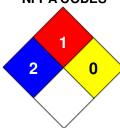
APPROVED BY: Samantha Stouffer TITLE: Quality and Safety Manager

PREPARED BY: Emmanuel Mukund **Date-Revised:** 5/5/2015 **REVISION SUMMARY:** This MSDS replaces the 5/5/2015 MSDS.

HMIS RATING

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA CODES



MANUFACTURER DISCLAIMER:

To the best of our knowledge, the information contained herein is accurate. However, Pacer Technology does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.



Date Prepared: 5/16/2008

MSDS No: PT41-GHS-HARDENER

Date-Revised: 5/18/2015

Revision No: 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Z-POXY FINISHING RESIN KIT 40Z - HARDENER

MANUFACTURER

Pacer Technology 3281 E. Guasti Rd., Suite 260 Ontario, CA 91761

Emergency Contact: CHEMTREC **Emergency Phone:** 800-424-9300

Alternate Emergency Phone: 703-527-3887 Product Stewardship: 909-987-0550

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Oral), Category 4
Acute Toxicity (Inhalation), Category 4
Skin Corrosion, Category 1B
Skin Sensitization, Category 1

Environmental:

Aquatic Toxicity, Category 3

GHS LABEL ELEMENTS





Corrosion

Exclamation mark

SIGNAL WORD: DANGER HAZARD STATEMENTS

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H332: Harmful if inhaled.

H412: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

Prevention:

3559CN3R: P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.



Date Prepared: 5/16/2008

MSDS No: PT41-GHS - HARDENER

Date-Revised: 5/18/2015

Revision No: 2

9663G3CU: P501: Dispose of contents/containers in accordance with all local, state, and federal requirements.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Light yellow colored viscous liquid.

IMMEDIATE CONCERNS: R20/22: Harmful by inhalation and if swallowed.

R36/38: Irritating to eyes and skin. S2: Keep Out of Reach of Children.

POTENTIAL HEALTH EFFECTS

EYES: S24/25: Avoid Contact with skin and eyes. **SKIN:** R43: May cause sensitization by skin contact. **INGESTION:** Irritating to mouth, throat and stomach.

INHALATION: Irritating to the nose, throat and respiratory tract.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing skin, eye and lung conditions. **ROUTES OF ENTRY:** Inhalation, ingestion and skin absorption are major routes of entry.

IRRITANCY: Irritating to eyes, respiratory system and skin.

SENSITIZATION: May cause allergic skin reaction.

WARNING CAUTION LABELS: Harmful. Keep out of Reach of Children.

COMMENTS HEALTH: S46: If swallowed, seek medical advice immediately and show this container or label.

COMMENTS: Contains epoxy constituents. See information supplied by manufacturer.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Benzyl alcohol	20 - 40	100-51-6
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	10 - 15	90-72-2
3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE	3 - 5	2855-13-2
3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE	1 - 10	112-57-2
Bis(dimethylamino)methyl phenol	3	71074-89-0

4. FIRST AID MEASURES

EYES: S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SKIN: Irritation occurs upon direct contact. Remove contaminated clothing and wash affected areas with soap and water.

INGESTION: If swallowed, seek medical advice immediately and show this container or label.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

SKIN: R43: May cause sensitization by skin contact.

INGESTION: Ingestion of this material can cause mouth, throat, esophageal, and gastrointestinal tract irritation.



Date Prepared: 5/16/2008

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INHALATION: Prolonged or excessive inhalation may cause respiratory tract irritation.

ACUTE TOXICITY: Slightly irritating to eyes and respiratory tracts. **CHRONIC EFFECTS:** Irritating to eyes, respiratory system and skin.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, foam, carbon dioxide, dry chemicals.

FIRE FIGHTING PROCEDURES: Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

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 (TVL 2ppm). Combustion of product under oxygen-starved conditions can be expected to produce toxic products including nitriles and amides.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Polymerize with water. Solid material may be scraped from surface.

LARGE SPILL: Absorb the liquid and scrub the area with detergent and water. Avoid runoff into storm sewers and ditches which lead to waterways.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: S51: Use only in well-ventilated areas.

HANDLING: Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin, eyes and clothing. Keep container closed when not in use.

STORAGE: Store in a cool place in original container and protect from sunlight. Keep away from sources of ignition.

STORAGE TEMPERATURE: Ambient room temperature (70F/21C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use only in a well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

SKIN: Avoid contact with skin.

RESPIRATORY: S51: Use only in well-ventilated areas.

PROTECTIVE CLOTHING: Launder contaminated clothing before reuse.

WORK HYGIENIC PRACTICES: Avoid contact with skin and eyes. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES



Date Prepared: 5/16/2008

MSDS No: PT41-GHS-HARDENER

Date-Revised: 5/18/2015

Revision No: 2

Chemical Name	Flash Point (℃)
Benzyl alcohol	200

PHYSICAL STATE: Liquid ODOR: Ammonia Odor.

ODOR THRESHOLD: No data available **APPEARANCE:** Pale yellow viscous liquid.

COLOR: Clear to pale yellow

pH: No data available

PERCENT VOLATILE: No data available

FLASHPOINT AND METHOD: 93 °C (200 °F) Pensky-Martens CC

FLAMMABLE LIMITS: Not Available

AUTOIGNITION TEMPERATURE: No data available

VAPOR PRESSURE: No data available VAPOR DENSITY: No data available BOILING POINT: No data available FREEZING POINT: No data available MELTING POINT: No data available

THERMAL DECOMPOSITION: No data available

SOLUBILITY IN WATER: Slightly soluble. **EVAPORATION RATE:** No data available

DENSITY: No data available

SPECIFIC GRAVITY: 1.04 (water=1)
VISCOSITY: No data available

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid storage near large masses of epoxy resins.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustible by-products of carbon monoxide/dioxide, hydrogen sulfide and

oxides of sulfur.

INCOMPATIBLE MATERIALS: Avoid strong oxidizing agents and amines especially when hot.

11. TOXICOLOGICAL INFORMATION

ACUTE



Date Prepared: 5/16/2008

MSDS No: PT41-GHS-HARDENER

Date-Revised: 5/18/2015

Revision No: 2

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Benzyl alcohol	1230	2000	1000

EYE EFFECTS: Mildly to moderately irritating.

SKIN EFFECTS: Irritating to skin. May cause allergic skin reaction with prolonged contact. **SENSITIZATION:** Irritating to skin. May cause allergic skin reaction with prolonged contact.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Do not flush to sewer.

ECOTOXICOLOGICAL INFORMATION: No data available.

AQUATIC TOXICITY (ACUTE): No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Cure by mixing with equal portion of paired component for non-hazardous solid waste disposal.

FOR LARGE SPILLS: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including ignitible vapors, have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

PRODUCT DISPOSAL: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not restricted

TECHNICAL NAME: Not restricted

AIR (ICAO/IATA)

SHIPPING NAME: Not restricted

VESSEL (IMO/IMDG)

SHIPPING NAME: Not restricted

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute Health Hazard Chronic Health Hazard

313 REPORTABLE INGREDIENTS: None above reporting de minimus.

TSCA (TOXIC SUBSTANCE CONTROL ACT)



Date Prepared: 5/16/2008

MSDS No: PT41-GHS-HARDENER

Date-Revised: 5/18/2015

Revision No: 2

Chemical Name	CAS
Benzyl alcohol	100-51-6
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	90-72-2
3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE	2855-13-2
3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE	112-57-2

TSCA STATUS: All ingredients in this mixture are in compliance with TSCA.

CALIFORNIA PROPOSITION 65: None known.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION

IRRITANT

16. OTHER INFORMATION

APPROVED BY: Samantha Stouffer TITLE: Quality and Safety Manager

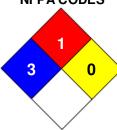
Date-Revised: 5/18/2015

REVISION SUMMARY: This MSDS replaces the 5/12/2015 MSDS.

HMIS RATING



NFPA CODES



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