

Safety Data Sheet



Petra Waterbased Epoxy RC – PART A

1. IDENTIFICATION

24 HOUR EMERGENCY ASSISTANCE	MANUFACTURER/GENERAL MSDS ASSISTANCE
CHEM-TEL 1-800-255-3924	Petra Polymers Tel.: (888)-497-3872 1610 E. Miraloma Ave. Placentia, CA 92870

PRODUCT IDENTIFIER/NAME: Petra Waterbased Epoxy RC – PART A

RECOMMENDED USE: Chemical intermediate for epoxy

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute Oral Toxicity Category 5
Skin Irritation Category 2
Skin Sensitizer Category 1
Germ Cell Mutagenicity Category 2
Aspiration Toxicity Category 2

NFPA ratings (scale 0 – 4):

HEALTH	2
FIRE	1
REACTIVITY	0
SPECIAL	-

NFPA HAZARD RATING:

4= EXTREME 2= MODERATE 0= INSIGNIFICANT
3= HIGH 1= SLIGHT



HAZARD PICTOGRAMS:

SIGNAL WORD: Warning

PHYSICAL APPEARANCE: Milky white or colored liquid with faint epoxy odor

HAZARD STATEMENTS:

EYE: Minor transient irritation. No corneal injury likely.

SKIN CONTACT: May cause allergic skin reaction in susceptible individuals. Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD₅₀ for skin absorption in rabbits is 20,000 mg/kg. Skin disorders and Allergies. Adverse skin effects (such as rash, irritation or corrosion).

INGESTION: Low acute oral toxicity; LD₅₀ (rat) greater than 4000 mg/kg. No hazards anticipated from ingestion incidental to industrial exposure.

INHALATION: Vapors are unlikely due to physical properties. Not a problem unless heated to high temperature.

SYSTEMIC AND OTHER EFFECTS: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects. A poorly characterized sample of low molecular weight epoxy resin of this type has been reported to produce skin cancer in a highly sensitive strain of mice. However, high levels of impurities compromise the validity of the findings. Epoxy resin that is representative of current manufacturing processes is not believed to be a cancer hazard to humans. Results of mutagenicity tests in animals have been negative. Has been shown to be negative in some in vitro mutagenicity tests and positive in others.

PRECAUTIONARY STATEMENTS: Use personal protective equipment as required to minimize repeated skin exposure. Wash thoroughly after handling. If skin irritation or rash occurs: Wash with plenty of soap and water and avoid repeated exposure. IF ON SKIN: Wash with plenty of soap and water.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<i>Reaction products of Epichlorohydrin and Bisphenol A</i>	(CAS 25085-99-8)	< 50%
<i>Water</i>	(CAS 7732-18-5)	>50%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary Ingredient shows, the identity may be made available as provided in this standard.

4. FIRST AID MEASURES

EYES: Irrigation of the eye immediately with water for fifteen minutes is a good safety practice. Remove contact lenses.

SKIN: Contact will probably cause no more than irritation. Wash off in flowing water or shower. Wash clothing before reuse. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.

INGESTION: Low in toxicity. No adverse effects anticipated by this route of exposure incidental to proper industrial handling. Prevent aspiration of vomit. Turn victim's head to the side.

INHALATION: Remove to fresh air if effect occurs. Consult medical personnel.

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE-FIGHTING MEASURES

FLASH POINT: > 249°C

METHOD USED: PMCC

FLAMMABLE LIMITS

LFL: Not applicable

UFL: Not applicable

EXTINGUISHING MEDIA: Foam, CO₂, dry chemical, sand

FIRE AND EXPLOSION HAZARDS: None.

FIRE-FIGHTING EQUIPMENT: Wear positive pressure SCBA.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Large spill -- dike up and pump into appropriate containers. Small spill -- use noncombustible absorbent material/sand and shovel into suitable containers.

DISPOSAL METHOD: Large quantities should be recovered. Collect small quantities in waste metal drums and seal for removal to an approved landfill, or incinerate in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Practice good caution and personnel cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material. When using, do not eat, drink or smoke. Keep away from Oxidizers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Good room ventilation usually adequate for most operations.

RESPIRATORY PROTECTION: None normally needed.

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. Use impervious gloves when prolonged or frequently repeated contact could occur.

EYE PROTECTION: Use chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 212°F (100°C)

VAP PRESS: 19.30 mmHg at 21 °C

VAP DENSITY: Not applicable

SOL. IN WATER: Insoluble.

SP. GRAVITY: 1.11

APPEARANCE: Milky white or colored, viscous liquid.

ODOR: Faint epoxy odor

pH: Neutral

10. STABILITY AND REACTIVITY

STABILITY: (CONDITIONS TO AVOID) Excess heating over long periods of time degrades the resin.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Oxidizing agents.

Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Mineral acids. Incompatible with bases.

HAZARDOUS DECOMPOSITION PRODUCTS: The by-products expected in incomplete pyrolysis or combustion of epoxy resins is mainly phenolics, carbon monoxide, carbon dioxide and water. The thermal decomposition products of epoxy resins therefore should be treated as potentially hazardous substances, and appropriate precautions should be taken.

HAZARDOUS POLYMERIZATION: Will not occur by itself but masses more than 1 pound of product plus aliphatic amine will cause irreversible polymerization with considerable heat buildup.

11. TOXICOLOGICAL INFORMATION

ACUTE HEALTH HAZARD

EYE IRRITATION/CORROSION: Mild eye irritation.

ACUTE DERMAL:

IRRITATION/CORROSION: Non-irritant to the skin of a rabbit.

SENSITIZATION: May cause sensitization by skin contact

12. ECOLOGICAL INFORMATION

Ecotoxicity: No Data Available

Environmental Fate: No Data Available

Bioaccumulation: No Data Available

Biodegradation: No Date Available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Large quantities should be recovered. Collect small quantities in waste metal drums and seal for removal to an approved landfill, or incinerate in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

Transportation Emergency Number: CHEMTEL 1-800-255-3924.

CFR : Not regulated, IATA : Not regulated, IMDG : Not regulated, CTC : Not regulated Not dangerous goods

D.O.T. Shipping Name: Not Regulated By D.O.T.

15. REGULATORY INFORMATION

OSHA HAZCOM STANDARD REGULATION: Sensitizer.

EPA SARA Title III SECTION 312 (40 CFR 370) HAZARD CLASSIFICATION: Acute Health Hazard

EPA SARA Title III SECTION 313 (40 CFR 372) COMPONENT(S) ABOVE 'DE MINIMUS' LEVEL: None

WHMIS HAZARD CLASSIFICATION: Toxic Material Causing Other Toxic Effects

CALIFORNIA PROP 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

Date Revised: 05/06/2015

MANUFACTURER'S NAME AND ADDRESS:

Petra Polymers
1610 E. Miraloma Ave.
Placentia, CA 92870
Telephone: 714-572-6723

The information herein is given in good faith, but no warranty expressed or implied is made. Petra Polymers urges users of this product to evaluate its suitability and compliance with local regulations as Petra Polymers cannot foresee the nature of the final application or final location of usage.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	EU Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

Safety Data Sheet



Petra Waterbased Epoxy RC – PART B

1. IDENTIFICATION

24 HOUR EMERGENCY ASSISTANCE	MANUFACTURER/GENERAL MSDS ASSISTANCE
CHEM-TEL 1-800-255-3924	Petra Polymers Tel.: (888)-497-3872 1610 E. Miraloma Ave. Placentia, CA 92870

PRODUCT IDENTIFIER/NAME: Petra Waterbased Epoxy RC – PART B

RECOMMENDED USE: Chemical intermediate for epoxy

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute Dermal Toxicity Category 5
Acute Vapors Toxicity Category 5
Skin Irritation Category 2
Serious Eye Damage Category 1
Skin Sensitizer Category 1
Respiratory Sensitizer Category 1
TOST: Single Exposure Category 3
TOST: Repeated Exposure Category 2
Aspiration Toxicity Category 2

NFPA ratings (scale 0 – 4):

HEALTH	2
FIRE	1
REACTIVITY	0
SPECIAL	-

NFPA HAZARD RATING:

4= EXTREME 2= MODERATE 0= INSIGNIFICANT
3= HIGH 1= SLIGHT



HAZARD PICTOGRAMS:

SIGNAL WORD: Warning

PHYSICAL APPEARANCE: White milky liquid with slight amine odor.

HAZARD STATEMENTS:

EYE: May cause severe irritation with corneal injury, which may result in permanent impairment of vision, even blindness. Vapors may irritate eyes.

SKIN CONTACT: If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Causes skin irritation.

INGESTION: May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

INHALATION: May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.

CHRONIC HEALTH HAZARD: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater.

SYMPTOMS: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

AGGRAVATED MEDICAL CONDITIONS: Neurological disorders Eye disease Skin disorders and Allergies. Asthma.

PRECAUTIONARY STATEMENTS: Do not breathe dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. IF SWALLOWED: Get immediate medical advice/attention. IF exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<i>Poly (oxy (methyl-1,2-ethanediyl), alpha-(2-aminomethylethyl)- omega-(2-aminomethylethoxy) Propan-2-ol, 1-methoxy- Benzyl alcohol</i>	(CAS 9046-10-0)	< 10%
	(CAS 107-98-2)	<5%
	(CAS 100-51-6)	<4%

4. FIRST AID MEASURES

GENERAL ADVICE: Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

EYES: Rinse immediately with plenty of water for at least 15 minutes.

SKIN: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing, preferably under a safety shower. Seek medical attention immediately. Avoid prolonged or repeated contact to skin. Wash thoroughly after handling.

INGESTION: Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.

INHALATION: If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

5. FIRE-FIGHTING MEASURES

FLASH POINT: >100°C

FLAMMABLE LIMITS

LFL: Not Determined

UFL: Not Determined

EXTINGUISHING MEDIA: Water fog, alcohol foam, CO₂, dry chemical.

FIRE & EXPLOSION HAZARDS: Use full protective clothing (see section 8)

FIRE-FIGHTING EQUIPMENT: Use a positive pressure, self-contained breathing apparatus.

Specific hazards: May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

ENVIRONMENTAL PRECAUTIONS: Construct a dike to prevent spreading.

METHODS FOR CLEANING UP: Approach suspected leak areas with caution. Place in appropriate chemical waste container.

ADDITIONAL SAFETY PRECAUTIONS: Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

7. HANDLING AND STORAGE

HANDLING: Eye protection should be worn to avoid contact with eyes. Adhere to work practice rules established by government regulations. Avoid breathing vapors and/or aerosols. Avoid contact with eyes. Use only in well-ventilated areas. Use personal protective equipment. When using, do not eat, drink or smoke.

STORAGE: Do not store near acids. Keep away from Oxidizers. Keep containers tightly closed in a dry, cool and well ventilated place.

TECHNICAL MEASURE: Do not store in reactive metal containers. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

ENGINEERING MEASURES: Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: Wear appropriate respirator when ventilation is inadequate.

HAND PROTECTION: PVC disposable gloves Impervious gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

EYE PROTECTION: Chemical resistant goggles must be worn.

SKIN AND BODY PROTECTION: Long sleeve shirts and trousers without cuffs.

ENVIRONMENTAL EXPOSURE CONTROL: Construct a dike to prevent spreading.

SPECIAL INSTRUCTION FOR PROTECTION: Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 205°F, 96°C

VAP PRESSURE: 18.7mmHg @ 21°C

VAP DENSITY: 3.9

SOL. IN WATER: Dispersible.

SP. GRAVITY: 1.08

APPEARANCE: White liquid

ODOR: Slight

pH: 10.6

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

MATERIALS TO AVOID: Sodium hypochlorite.

Organic acids (i.e. acetic acid, citric acid etc.).

Mineral acids.

Incompatible with bases.

Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.
Oxidizing agents.
Reactive metals (e.g. sodium, calcium, zinc etc.).
Materials reactive with hydroxyl compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides (NOx).
Nitrogen oxide can react with water vapors to form corrosive nitric acid.
Chlorine
Carbon monoxide.
Carbon dioxide (CO2).
Ammonia
Aldehydes
Flammable hydrocarbon fragments.

11. TOXICOLOGICAL INFORMATION

ACUTE HEALTH HAZARDS:

INGESTION: No data is available on the product itself.

Poly (oxy (methyl-1,2-ethanediyl), alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)	LD50 : 2,880 mg/kg	Species : Rat.
Propan-2-ol, 1-methoxy-	LD50 : 5,700 mg/kg	Species : Rat.
Benzyl alcohol	LD50 : 1,230 mg/kg	Species : Rat.

INHALATION: No data is available on the product itself.

Propan-2-ol, 1-methoxy-	LC50 (4 h)	Species : Rat.
Benzyl alcohol	LC50 (4 h) : > 4.178	

SKIN: No data is available on the product itself.

Poly (oxy (methyl-1,2-ethanediyl), alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)	LD50 : 2,980 mg/kg	Species: Rabbit.
Propan-2-ol, 1-methoxy-	LD50 : 13,000 mg/kg	Species : Rabbit.
Benzyl alcohol	LD50 : 2,000 mg/kg	Species : Rabbit.
Eye irritation/corrosion :	Severe eye irritation.	

CHRONIC HEALTH HAZARDS: Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY: No data is available on the product itself.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Large quantities should be recovered. Collect small quantities in waste drums and seal for removal to an approved landfill, or incinerate in accordance with current local, state, and federal regulations.

14. TRANSPORT INFORMATION

Transportation Emergency Number: CHEMTEL 1-800-255-3924.

15. REGULATORY INFORMATION

OSHA HAZCOM STANDART RATING: Irritant.

EPA SARA Title III SECTION 312 (40 CFR 370) HAZARD CLASSIFICATION: Acute Health Hazard EPA

SARA Title III SECTOPM 313 (40 CFR 372) COMPONENT(S) ABOVE "DE MINIMUS" LEVEL: None.

U.S. CALIFORNIA PROP 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS HAZARD CLASSIFICATION: Toxic Material Causing Other Toxic Effects

16. OTHER INFORMATION

Date Revised: 05/06/2015

MANUFACTURER'S NAME AND ADDRESS:

**Petra Polymers
1610 E. Miraloma Ave.
Placentia, CA 92870
Telephone: 714-572-6723**

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