

Safety Data Sheet



PetraPrime – 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: PetraPrime – 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

NFPA ratings (scale 0 – 4):

HEALTH	1
FIRE	2
REACTIVITY	0
SPECIAL	-

NFPA HAZARD RATING:

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



HAZARD PICTOGRAMS:

SIGNAL WORD: Warning

PHYSICAL APPEARANCE: Clear to milky 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.

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)	> 90%
<i>Alkyl Glycidyl Ether</i>	(CAS 68609-97-2)	>10%
<i>Dipropylene glycol monomethyl ether acetate</i>	(CAS 88917-22-0)	> 7%

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.

SKIN: Contact will probably cause no more than irritation. Wash off in flowing water or shower. Wash clothing before reuse.

INGESTION: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended

INHALATION: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

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: 186°F

METHOD USED: Seta CC

SUITABLE EXTRINGUISHING MEDIA: Dry chemical, Carbon dioxide (CO₂), Water spray, Alcohol-resistant foam

HAZARDOUS COMBUSTION MEDIA: Carbon dioxide and carbon monoxide, Hydrocarbons

PRECAUTION FOR FIRE FIGHTING: If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and are ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb

unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

ENVIRONMENTAL PRECAUTIONS: Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

METHODS FOR CLEANING UP: Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

HANDLING: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

STORAGE: Store in a cool, dry, ventilated area away from sources of heat, moisture, and incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

These recommendations provide general guidance for handling this product.

Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

EXPOSURE CONTROL: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

VENTILATION: Good room ventilation usually adequate for most operations.

RESPIRATORY PROTECTION: If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist).

Engineering or administrative controls should be implemented to reduce exposure.

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: Not applicable

VAP PRESS: Not applicable

VAP DENSITY: Not applicable

SOL. IN WATER: None

SP. GRAVITY: 1.12-1.14

APPEARANCE: Straw colored liquid.

ODOR: Faint epoxy odor

10. STABILITY AND REACTIVITY

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

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Base.

HAZARDOUS DECOMPOSITION PRODUCTS: The by-products expected in incomplete pyrolysis or combustion of epoxy resins is mainly phenolics, carbon monoxide 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 oral toxicity

DIPROPYLENE GLYCOL MONOMETHYL

ETHER ACETATE LD 50 Rat: > 5,000 mg/kg
Acute inhalation toxicity
DIPROPYLENE GLYCOL MONOMETHYL
ETHER ACETATE no data available
Acute dermal toxicity
DIPROPYLENE GLYCOL MONOMETHYL
ETHER ACETATE LD 50 Rabbit: > 5,000 mg/kg

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 1-800-255-3924 CHEM-TEL

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

15. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:

The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355. Components present in this product at a level which could require reporting under this statute are:

Chemical Name	CAS Number	% By Weight
NONE		

Sections 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute	Chronic	Fire	Pressure	Reactive
Hazard	Hazard	Hazard	Hazard	Hazard
No	No	No	No	No

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% By Weight
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NONE

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line: 800-535-0202 or 202-479-2449.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The components of this product are contained on the chemical substance inventory list.

16. OTHER INFORMATION

Date Revised: 05/06/2015

MANUFACTURER'S NAME AND ADDRESS:

Petra Polymers

1610 E. Miraloma Ave.

Placentia, CA 92870

Telephone: 888-497-3872

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.

Safety Data Sheet



PetraPrime – 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: PetraPrime – PART B
RECOMMENDED USE: Chemical intermediate for epoxy

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute Oral Toxicity Category 4
Acute Dermal Toxicity Category 4
Skin Corrosion Category 1B
Serious Eye Damage Category 1
Skin Sensitizer Category 1
Respiratory Sensitizer Category 1
TOST: Single Exposure Category 3

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: Danger!

PHYSICAL APPEARANCE: Clear to amber colored liquid with faint 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: May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic responses.

SKIN ABSORPTION: A single prolonged exposure may result in the material being absorbed in harmful amounts. The LD₅₀ for skin absorption has not been determined.

INGESTION: Single dose oral toxicity is low. The oral LD₅₀ has not been determined. Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat.

INHALATION: May cause respiratory sensitization or asthma in susceptible individuals. Excessive exposure may cause irritation to upper respiratory tract.

SYSTEMIC & OTHER EFFECTS: Results of in vitro ("test tube") mutagenicity tests have been negative.

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>Cycloaliphatic amine</i>	(CASTS)	< 50 %
<i>Benzyl Alcohol</i>	(CAS 100-51-6)	< 50 %
<i>Polyetheramine</i>	(CASTS)	< 50 %
<i>Isophorone diamine</i>	(CAS 002855-13-2)	< 35 %

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

INHALATION: If overcome by exposure, remove victim to fresh air immediately. Call a physician. Give oxygen or artificial respiration as needed.

EYES: Immediate and continuous irrigation with flowing water for at least 30 minutes is required. Promptly seek medical attention.

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.

NOTES TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as any thermal burn, after decontamination. 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: 213°F

METHOD USED: PMCC

FLAMMABLE LIMITS

LFL: Not Determined

UFL: Not Determined

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

FIRE & EXPLOSION HAZARDS: Use full protective clothing

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

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.

ENVIRONMENTAL PRECAUTIONS: Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

METHODS FOR CLEANING UP: Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with skin and eyes

STORAGE: Store in sealed containers in a cool, dry, ventilated area, away from incompatible substances.

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Ground all transfer equipment. Hold bulk storage under a nitrogen blanket. This product should not come in contact with copper or copper-bearing alloys. Good general housekeeping procedure should be followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINE(S): None established.

VENTILATION: Control airborne concentration below the exposure guideline. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air purifying respirator.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Contaminated leather items, such as shoes, belts and watchbands, should be removed and destroyed.

EYE PROTECTION: Use chemical goggles. If vapor exposure causes eye irritation, use a full face respirator. Eye wash fountain should be located in immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 401°F

VAP PRESSURE: 0.02mmHG @20°C, 68°F

VAP DENSITY: 5.88

SOL. IN WATER: Moderately soluble.

SP. GRAVITY: 1.00

APPEARANCE: Pale straw colored liquid

ODOR: Amine odor

10. STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Can react strongly with epoxy resins at elevated temperatures...

INCOMPATIBILITY PRODUCTS: Epoxy resins under uncontrolled conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides when burned.

HAZARDOUS REACTIONS: Product will not undergo hazardous polymerization.

THERMAL DECOMPOSITION: No data

11. TOXICOLOGICAL INFORMATION

No Data Available

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: Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Avoid contact with water. Aqueous wastes may not biograde. Do not treat biologically; may poison/upset plant biomass. Comply with applicable local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal.

14. TRANSPORT INFORMATION

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

D.O.T. Shipping Name: Corrosive Liquids, N.O.S. (Cycloaliphatic amines), Class 8, UN 1760, PG III

15. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:

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FEDERAL EPA:

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CERCLA):

Requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% By Weight	RQ
NONE			

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

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Chemical Name	CAS Number	% By Weight
NONE		

Sections 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% By Weight
NONE		

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line: 800-535-0202 or 202-479-2449.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The components of this product are contained on the chemical substance inventory list.

16. OTHER INFORMATION

Date Revised: 05/06/2015

MANUFACTURER'S NAME AND ADDRESS:

Petra Polymers

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Placentia, CA 92870

Telephone: 888-497-3872

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