

Section 1. Product and Company Identification

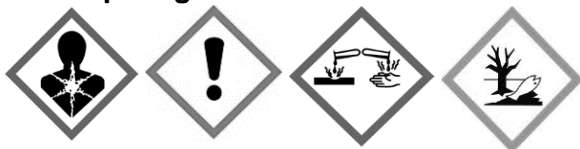
Product Name: PPR Part B
Supplier: CSNRI | 621 Lockhaven Drive. Houston, TX 77073 | +1 281.590.8491
Emergency Phone Number: 800.424.9300 (CHEMTREC)
 +1 703.741.5970 (Outside the US)
Product Description: Hardener solution for epoxy resin
Product Use: Intended to repair pipes

Section 2. Hazards Identification

Classification of the substance or mixture

Acute toxicity / oral – Category 4
 Acute toxicity / dermal – Category 4
 Skin corrosion/irritation – Category 1B
 Sensitization /skin – Category 1
 Hazardous to the aquatic environment – long term (chronic) hazard – Category 2
 Reproductive toxicity – Category 2

Hazard pictograms:



Signal word: Danger

Hazard statements:

H302 Harmful if swallowed
 H312 Harmful in contact with skin
 H314 Causes severe skin burns and eye damage
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects
 H361 Suspected of damaging fertility or the unborn child.

Precautionary statements:

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 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.
 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.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved waste disposal plant.
Other hazards: None known.

Section 3. Composition/Information on Ingredients

Substance/Mixture: Preparation
Chemical nature: Epoxy constituents
Hazardous components:

Component	CAS #	% Composition
Polyamido amine	68953-36-6	30 – 50
3,6,9-triazaundecamethylenediamine	112-57-2	5 – 10
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer	25085-99-8	1 – 10
Titanium Dioxide	13463-67-7	1 – 10
Magnesite	546-93-0	1 – 10
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	1 – 10
3-Aminopropyltriethoxysilane	919-30-2	1 – 10
Nonylphenol	84852-15-3	0.1 – 1
Triethylenetetramine	112-24-3	0.1 – 1

Section 4. First Aid Measures

First Aid Measures for Accidental:

General advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

Inhalation: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Skin contact: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.

Eye contact: Small amounts splashed into eyes can cause irreversible tis-sue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Ingestion: Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.



Most important symptoms and effects, both acute and delayed: Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Section 5. Fire-fighting Measures

Suitable extinguishing media: CO₂, extinguishing powder or water spray. Fight larger fires with water spray. Use firefighting measures that suit the environment.

Unsuitable extinguishing media: High volume water jet.

Specific hazards during fire-fighting: Do not allow run-off from fire-fighting to enter drains or water courses.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for fire-fighting if necessary

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and material for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Precaution for safe handling: Avoid formation of aerosol. Do not breathe vapours /dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage including any incompatibility: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Section 8. Exposure Controls/Personal Protection

Control parameters:

Component	Exposure Limits		
	ACGIH	OSHA PEL	NIOSH
Titanium dioxide	10 mg/m ³ TWA	15 mg/m ³ TWA (total dust)	-



3,6,9-triazaundecamethylene-diamine	-	-	5 mg/m ³ US WEEL (TWA)
Magnesite	-	15 mg/m ³ (TWA-dust) 5 mg/m ³ (TWA-resp)	5 mg/m ³ (TWA-resp.) 10 mg/m ³ (TWA-total)
Triethylenetetramine	-	-	1 ppm (US WEEL)

Appropriate Engineering Controls: Ventilation must be adequate for most operations.

Individual protection measures:

Respiratory protection: In the case of vapour formation use a respirator with an approved filter.

Hand protection: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Section 9. Physical and Chemical Properties

Physical state:	Liquid
Color:	No data available
Odor:	Amine odor
Odor threshold:	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	Not applicable
Flammability (solid, gas):	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Viscosity, kinematic:	No data available
Viscosity:	No data available
Solubility:	No data available
Vapor pressure:	No data available
Density:	No data available
Relative vapor density at 20 °C:	No data available
Relative evaporation rate (butyl acetate=1):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Explosive limits:	No data available

Section 10. Stability and Reactivity

Reactivity: No decomposition if stored and applied as directed.



Chemical stability: No decomposition if stored and applied as directed.

Possibility of hazardous reactions: No decomposition if stored and applied as directed.

Conditions to avoid: No data available.

Incompatible materials: No data available.

Hazardous decomposition products: No data available

Section 11. Toxicological Information

Acute toxicity: Not classified based on available information.

Oral: Acute toxicity estimate: 4,941 mg/kg

Method: Calculation method

Dermal: Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

For 3-Aminopropyltriethoxysilane:

Oral: LD50 (rat): 1.57 mg/kg

Dermal: LD50 (rabbit): 4.29 mg/kg

Skin corrosion/irritation: May cause skin irritation. Extremely corrosive and destructive to tissue.

For 3-Aminopropyltriethoxysilane:

Species: Rabbit

Exposure time: 24 h

Assessment: Causes severe burns.

Result: Severe skin irritation.

Serious eye damage/irritation: Causes serious eye irritation. May cause irreversible eye damage.

For 3-Aminopropyltriethoxysilane:

Species: Rabbit

Result: Mild eye irritation.

Assessment: Irritating to eyes.

Species: Rabbit

Result: Irreversible effects on the eye.

Exposure time: 24 h

Assessment: Causes severe burns.

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity: Not classified based on available information.

Carcinogenicity: Suspected of causing cancer.

IARC Group 2B: Possibly carcinogenic to humans.
Titanium Dioxide (13463-67-7)

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.



Reproductive Toxicity: Suspected of damaging fertility or the unborn child.
STOT - single exposure: May cause respiratory irritation.
STOT - repeated exposure: Not classified based on available information.
Aspiration Toxicity: Not classified based on available information.

Section 12. Ecological Information

Toxicity: No additional information available.
Persistence and degradability: No additional information available.
Bioaccumulative potential: No additional information available.
Mobility in soil: No additional information available.
Other adverse effects: Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances. Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

Section 13. Disposal Considerations

Waste treatment methods: Waste from residues: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

Section 14. Transport Information

DOT (US)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (3-Aminopropyltriethoxysilane)

UN number: 2735

Class: 8

Packing group: III

IMDG

UN number: 2735

Proper shipping name: Amines, liquid, corrosive, n.o.s. (3-aminopropyltriethoxysilane)

Class: 8

Packing group: III

EMS-No: F-A, S-B

IATA

Proper shipping name: Amines, liquid, corrosive, n.o.s. (3-Aminopropyltriethoxysilane)

UN number: 2735

Class: 8

Packing group: III

Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

**EPCRA - Emergency Planning and Community Right - to - Know Act**

CERCLA Reportable Quantity: This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity: This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Chronic Health Hazard. Acute Health Hazard.

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act: This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A. This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3. This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307.

California Prop 65: WARNING! This product contains a chemical known to the State of California to cause cancer:

Titanium Dioxide (13463-67-7)

Section 16. Other Information

The information contained herein is based on the data available to us and is believed to be accurate. The data is offered in good faith as typical values and not as product specification. The information in this data sheet was compiled from information supplied by the vendors of the components of this compound. CSNRI makes no warranty either expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The recommended industrial hygiene and safe handling procedures are believed to be genuinely applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. CSNRI assumes no responsibility for injury from the use of the product described herein. The information is intended only to assist in the safe handling of this material. CSNRI DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR FREEDOM FROM PATENT INFRINGEMENT. CSNRI WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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