

Section 1. Product and Company Identification

Product Name: PPR-460 Part A
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: Epoxy resin
Product Use: Intended to repair pipes

Section 2. Hazards Identification**GHS Classification**

Acute toxicity (Oral) – Category 4
Skin sensitization – Category 1
Germ cell mutagenicity – Category 2
Specific target organ toxicity / repeated exposure – Category 2
Chronic aquatic toxicity – Category 2

Hazard pictograms:

Signal word: Warning

Hazard statements:

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs (gastrointestinal / oral) through prolonged or repeated exposure
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards: None known.

Section 3. Composition/Information on Ingredients

Mixture:

Component	CAS #	% Composition
4,4'-Methylenebis (N,N-diglycidylaniline)	28768-32-3	45 – 60
N,N-Diglycidyl-4-glycidyoxyaniline	5026-74-4	45 – 60
Titanium Dioxide	13463-67-7	1 – 5
phenol, 4, 4'- (1-methylethylidene) bis-, polymer with (chloromethyl)oxirane	25068-38-6	0.1 – 1

Section 4. First Aid Measures

Description of first-aid measures:

General advice: Move out of dangerous area. 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: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

Eye contact: Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Ingestion: Induce vomiting immediately and call a physician. Keep respiratory tract clear. 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: Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction.

Section 5. Fire-fighting Measures

Suitable extinguishing media: CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

Unsuitable extinguishing media: High volume water jet.

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

Unusual Fire and Explosion Hazard: Closed containers exposed to extreme heat may rupture.

Hazardous Decomposition Materials (Under Fire Conditions): Combustion products may include, but are not limited to: phenolics, carbon monoxide, carbon dioxide.

Section 6. Accidental Release Measures

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

Cleanup and Disposal of Spill: 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



Precautions 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 incompatibilities: 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

Exposure Guidelines:

Component	Exposure Limits		
	ACGIH-TLV (TWA)	NIOSH	OSHA-PEL (TWA)
Titanium Dioxide	10 mg/m ³	-	OSHA Z-1: 15 mg/m ³ (Total dust) OSHA P0: 10 mg/m ³ (Total dust)

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

Personal protective equipment:

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 Property

Physical Appearance:	Orange paste
Odor:	Slight
Odor Threshold:	No data available
pH:	Neutral
Flash Point:	442 °C
Melting Point Range:	No applicable
Boiling point:	No data available
Evaporation rate (ether=1):	No data available
Flammability (solid, gas):	No data available
Flammability Limits in Air:	Not established for this product
Viscosity:	263,000 cP at 77 °F
Water Solubility:	Practically Insoluble
Solubility in other solvents:	No data available
Vapor Pressure:	No data available



Vapor density (Air=1)	No data available
Relative Density:	1.20 g/cm ³
Partition coefficient (n-octanol/water):	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	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 / Chemicals: Acids. Bases. Strong acids. Strong oxidizing agents. Reacts with amines.

Hazardous Decomposition Products: Uncontrolled exothermic reaction of epoxy resin releases carbon monoxide, carbon dioxide and aldehydes.

Section 11. Toxicological Information

Acute toxicity: Harmful if swallowed.

Oral: Acute toxicity estimate: 983.28 mg/kg
Method: Calculation method

Skin corrosion/irritation: Causes skin irritation. May cause skin irritation and/or dermatitis.

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

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

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: Not classified based on available information.

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

Ecotoxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data 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. Toxic to aquatic life with long lasting effects.

Section 13. Disposal Considerations

Disposal 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.

Uncleaned packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

Section 14. Transport Information

International Regulation

IATA-DGR

UN Number: UN 3082
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (4,4'-Methylenebis (N,N-diglycidylaniline))
Class: 9
Packing group: III
Packing instruction (cargo aircraft): 964
Packing instruction (passenger aircraft): 964

IMDG-CODE

UN Number: UN 3082
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (4,4'-Methylenebis (N,N-diglycidylaniline))
Class: 9
Packing group: III
EmS Code: F-A, S-F

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable for product as supplied.

National Regulations

DOT

UN Number: UN 3082
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (4,4'-Methylenebis (N,N-diglycidylaniline))
Class: 9
Packing group: III
ERG Code: 171

Section 15. Regulatory Information

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 SOCOMI 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

Key Legend Information:

N/A – Not Applicable

ND – Not Determined

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

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