



### Section 1. Product and Company Identification

**Product Name:** PPR-220 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 for epoxy resin  
**Product Use:** Intended to concrete application  
**Chemical Name or Synonym:** N/A

### Section 2. Hazards Identification

#### Classification of the substance or mixture:

Acute toxicity/oral – Category 4

Skin corrosion/irritation – Category 2

Skin sensitization - Category 1

Serious eye damage/eye irritation – Category 1

Hazardous to the aquatic environment – Long Term (Chronic) Hazard – Category 2

#### Label Elements:



#### Hazard Statements:

H302 Harmful if swallowed

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H411 Toxic to aquatic life with long lasting effects

#### Signal Word: Danger

#### Precautionary Statement:

P264 Wash thoroughly after handling

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

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

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

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

P301+P312 IF SWALLOWED: Call a Poison Center/doctor if you feel unwell.

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

P312 Call a POISON CENTER if you feel unwell.

### Section 3. Composition/ Information on Ingredients



Chemical Name	CAS-No	Weight %
Reaction products with polyethylenepolyamines	68410-23-1	75 – 90
2,4,6-tri(dimethylaminomethyl) phenol	90-72-2	7 – 15
3-(trimethoxysilyl) propylamine	13822-56-5	3 – 6
Calcium metasilicate	13983-17-0	1.5 – 4

#### Section 4. First Aid Measures

##### **First Aid Measures for Accidental:**

**Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

**Ingestion:** Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Most important symptoms/effects, acute and delayed:** Skin/eye irritation. May cause an allergic skin irritation.

**Indication of immediate medical attention and special treatment needed:** Treat symptomatically.

#### Section 5. Fire Fighting Measures

**Suitable Extinguishing Media:** Carbon dioxide, foam, dry chemical, water fog, limestone powder. Use water spray to cool fire exposed containers.

**Unsuitable Extinguishing Media:** Do not use high pressure water jet as this may spread the area of the fire.

**Special Protective Equipment and Precautions for Fire-fighters:** Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary, with a full face-piece operated in positive pressure mode to protect against potential harmful and/or irritating fumes.

**Specific Hazards Arising from the Chemical (Under Fire Conditions):** Exposure to decomposition products may be harmful to health; combustion products may include but are not limited to: carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, nitric acid. The formation of hydrocarbon fragments is possible in the initial states of fire (especially between 400 °C ad 700 °C); smoke may contain particles of the original material as well.

#### Section 6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not walk through spilled material. Shut off all ignition sources. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8). Avoid breathing mist, vapors, spray. Avoid contact with skin, eyes and clothing.

**Environmental Precautions:** Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas.

**Methods and Materials for Containment and Cleaning Up:** Halt the flow of material as soon as practical using barriers. Turn containers leak-side up to stop the escape of liquid. Prevent from spreading or entering into drains,



ditches, waterways by using sand, earth or appropriate barriers. Dispose of in accordance with applicable local and federal environmental control regulations.

### Section 7. Handling and Storage

**Precautions for Safe Handling:** Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse empty container.

**Conditions for safe storage including any incompatibilities:** Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Store in tightly closed containers to prevent moisture absorption and loss of volatiles. Store away from heat and open flame.

### Section 8. Exposure Controls / Personal Protection

#### Control Parameters (Exposure Limits):

Component	Exposure Limits		
	ACGIH-TLV	NIOSH	OSHA-PELs
Calcium metasilicate	10 mg/m <sup>3</sup> (TWA) (inhalable) 3 mg/m <sup>3</sup> (Respirable)	-	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (Respirable)

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

#### Personal Protective Equipment:

**Respiratory Protection:** In case of inadequate ventilation wear respiratory protection. Use a NIOSH approved organic vapor cartridge respirator. Self-contained breathing apparatus should also be available in case of emergency.

**Eye / Face Protection:** Wear safety glasses with side shields or chemical splash goggles when exposure is more likely.

**Skin Protection:** Wear chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.

**Additional protective measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Section 9. Physical and Chemical Properties

<b>Physical State:</b>	Paste
<b>Colour:</b>	Beige
<b>Odour:</b>	Amine like
<b>Melting Point/ Freezing Point:</b>	No data available
<b>Boiling point:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available



<b>Lower and Upper Explosion limits/ Flammability Limits:</b>	No data available
<b>Flash Point:</b>	No data available
<b>Auto-ignition Temperature:</b>	No data available
<b>Decomposition Temperature:</b>	No data available
<b>pH:</b>	No data available
<b>Kinematic Viscosity:</b>	41,000 ± 2,000 cPs
<b>Solubility:</b>	No data available
<b>Evaporation rate (ether=1):</b>	No data available
<b>Flammability Limits in Air:</b>	No data available
<b>Solubility in other solvents:</b>	No data available
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Vapour Pressure:</b>	No data available
<b>Density and/or Relative Density:</b>	No data available
<b>Relative Vapour Density:</b>	No data available
<b>Specific Gravity:</b>	1.0
<b>Particle Characteristics:</b>	No data available

#### Section 10. Stability and Reactivity

**Reactivity:** Stable

**Chemical Stability:** Stable under standard normal conditions.

**Possibility of Hazardous reactions:** Mixtures with strongly acidic or strongly alkaline materials may produce an exothermic reaction.

**Conditions to Avoid:** Avoid elevated temperatures and sources of ignition.

**Incompatible Materials / Chemicals:** Keep uncured material away from strong acids, strong bases, oxidizing agents. Reacts with epoxy.

**Hazardous Decomposition Products:** Thermal decomposition will generate carbon monoxide, carbon dioxide and nitrogen oxides, ammonia, nitric acid.

#### Section 11. Toxicological Information

**Information in the likely route of exposure:**

**Potential Acute Health Effects:**

Inhalation: Exposure to vapors from heated product may cause irritation or sensitization of the nose and throat.

Ingestion: May cause burns to the mouth, throat and stomach.

Skin contact: Cause moderate irritation. May cause an allergic skin reaction.

Eye contact: Causes moderate to severe irritation. Direct contact with the material or exposure to vapors or mists may cause stinging, tearing, redness, blurred vision.

**Symptoms related to the physical, chemical and toxicological characteristics:**



**Mutagenicity:** No information available.

**Carcinogenicity:** None ingredients classified as carcinogenic. No listed by OSHA, NTP, IARC

**Reproductive Toxicity:** No known significant effects or critical hazards.

**Tetratogenicity:** No known significant effects or critical hazards.

**Specific Target Organ Toxicity - single exposure (STOT-se):** No data available

**Specific Target Organ Toxicity - repeated exposure (STOT-re):** No data available

**Over-exposure signs / symptoms:** Repeated or prolonged exposure may cause an allergic skin reaction; once sensitized, a severe allergic reaction may occur.

**Delayed and immediate effects and also chronic effects from short- and long-term exposure:**

Short term exposure: No specific data.

Long term exposure: No specific data

**Numerical measures of toxicity:**

**Acute toxicity:**

Ingredient	Endpoint	Species	Results	Exposure
Reaction products with polyethylenepolyamines	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	
2,4,6-tri (dimethylaminomethyl) phenol	LD50 Oral	Rat	1653 mg/kg	-
	LD50 Dermal	Rabbit	1280 mg/kg	

**Section 12. Ecological Information**

**Ecotoxicity Effects:**

**Aquatic ecotoxicity:**

Product	Endpoint	Species	Results
Reaction products with polyethylenepolyamines	Acute LC50 (96hr)	Golden Orfe	2.3 mg/L
	Acute EC50 (24hr)	Daphnia magna	31.1 mg/L
	Acute EC50 (72hr)	Aquatic plants	2.5 mg/L
2,4,6-tri (dimethylaminomethyl) phenol	Acute LC50 (96hr)	Brachydanio rerio	153mg/L
	Acute EC50 (96hr)	Palaemonetes	718mg/L

**Persistence and degradability:** Ingredients are not readily biodegradable.

**Bioaccumulative potential:** No information available.

**Mobility in soil:** No information available.

**Other adverse effects:** No information available.

**Section 13. Disposal Considerations**

**Waste treatment methods:** Do not dump to ground, sewers or watercourses. Dispose of at a licensed waste disposal facility utilizing methods that are in compliance with all applicable federal, state and local laws regulations. Waste characterization and compliance with applicable laws are the responsibility solely of the waste generator.

**Uncleaned packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Section 14. Transport Information****DOT:**

Proper Shipping Name: Amines, liquid, corrosive n.o.s. (Reaction products with polyethylenepolyamines)

UN number: UN2735

Hazard Class: 8

Packing Group: PG III

ERG No 153

**IMDG:**

Proper Shipping Name: Amines, liquid, corrosive n.o.s. (Reaction products with polyethylenepolyamines)

UN number: UN2735

Hazard Class: 8

Packing Group: PG III

EmS No.: F-A, S-B

**IATA:**

Proper Shipping Name: Amines, liquid, corrosive n.o.s. (Reaction products with polyethylenepolyamines)

UN number: UN2735

Hazard Class: 8

Packing Group: PG III

EmS No.: F-A, S-B

**Section 15. Regulatory Information**

**TSCA Status:** All components are listed on TSCA Inventory or otherwise comply with TSCA requirements.

**SARA Title III Section 313:** No reportable components

**OSHA/IARC Carcinogen Status:** None ingredient listed

**NJ Right to know:** Contains traces of triethylene tetramine (CAS:112-24-3) which is listed by NJ Right to Know.

**Section 16. Other Information****Key Legend Information:**

N/A – Not Applicable

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

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