**Material Safety Data Sheet**

**Material Name**: **PSX20 / 34 / 60 Adhesive Hardener** **ID**: Amer-011

**The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.**

## * * * Section 1 - Chemical Product and Company Identification * * *

**Part Number: NA**
**Chemical Name: Polyamine**
**Product Use: Hardener for adhesive kit**
**Synonyms:**
**Manufacturer Information**


Ameron International Fiberglass Div
1004 Ameron Road
P. O. Box 878
Burkburnett, TX 76354

Phone#: (940) 569-1471
Fax #: (940) 569-2764
Chemtrec 24 hr Emergency #: (800) 424-9300


## * * * Section 2 - Composition / Information on Ingredients * * *

| CAS# | Components | Percent |
|---|---|---|
| NA | Aliphatic Amine | ~75 |
| 90-72-2 | Modified Aliphatic Polyamine | ~5 |
| 13983-17-0 | Calcium Silicate | ~15 |
| 67762-90-7 | Colloidal Silica (Amorphous) | ~10 |
| Proprietary | Proprietary (Methanol @<2%, trace contaminant toluene <50ppm) | ~10 |

**Component Information/Information on Non-Hazardous Components**

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

## * * * Section 3 - Hazards Identification * * *

**Emergency Overview**

Product is an White to Yellow, adhesive hardener compound. Toxic fumes and gases may be released during combustion. Contact may cause irritation or burns to eyes and skin.

**Hazard Statements**

Warning! May cause allergic skin and respiratory sensitization reactions with prolonged or repeated contact. May cause burns to the eyes and skin. May be irritating to eyes, skin and respiratory system. When adhesive resin is combined with adhesive hardener, vapors and a moderate amount of heat may be released.

**Potential Health Effects: Eyes**

This product may cause severe eye irritation, including redness, swelling, pain, tearing, and chemical burns. May cause permanent loss of vision.

**Potential Health Effects: Skin**

This product may cause severe skin irritation, including redness, inflammation, and chemical burns. Prolonged of repeated skin contact may cause allergic skin sensitization reactions, resulting in rash, swelling, itching, and possibly blistering of skin.

**Potential Health Effects: Ingestion**

Ingestion can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Ingestion of large amounts may produce more serious toxicities.

**Potential Health Effects: Inhalation**

Inhalation of vapors may cause severe irritation to the respiratory system. Heating this product will release vapors, which are irritating to the respiratory system. Prolonged or repeated inhalation may cause allergic sensitization reactions, resulting in

asthma-like symptoms.

**HMIS RATINGS**: **Health**: 3 **Fire**: 1 **Reactivity**:0 **Pers. Prot.**: neoprene gloves, chemical goggles
Hazard Scale: 0 = Minimal 1= Slight 2= Moderate 3= Serious 4 = Severe * = Chronic hazard

## * * * Section 4 - First Aid Measures * * *

**First Aid: Eyes**

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention or advice.

**First Aid: Skin**

For skin contact, wash immediately with soap and water. Get medical attention if irritation persists or develops.

**First Aid: Ingestion**

If the material is swallowed, get immediate medical attention or advice-- Do not induce vomiting unless instructed to do so by medical personnel.

**First Aid: Inhalation**

If inhaled, immediately remove to fresh air. Provide artificial respiration if necessary. Get immediate medical attention.

**First Aid: Notes to Physician**

Provide general supportive measures and treat symptomatically. Product may aggravate pre-existing skin and respiratory system disorders.

## * * * Section 5 - Fire Fighting Measures * * *

| | | | |
|---|---|---|---|
| **Flash Point:** | 200ºF | **Method Used:** | SETA |
| **Upper Flammable Limit (UFL):** | NA | **Lower Flammable Limit (LFL):** | NA |
| **Auto Ignition:** | NA | **Flammability OSHA Combustible**: | Class IIIB |

**General Fire Hazards**

Irritating and toxic gases or fumes may be released during a fire.

**Extinguishing Media**

Foam, carbon dioxide, and dry chemical

**Fire Fighting Equipment/Instructions**

Firefighters should wear full protective clothing including self-contained breathing apparatus. Closed container may explode when exposed to extreme heat and pressure buildup. Water may be used to cool containers exposed to heat.

**NFPA Ratings: Health:** 3 **Fire:** 1 **Reactivity:** 0 **Other** 0
Hazard Scale: 0 = Minimal 1= Slight 2= Moderate 3= Serious 4 = Severe

## * * * Section 6 - Accidental Release Measures * * *

**Containment Procedures**

Contain discharged material.

**Clean-Up Procedures**

Absorb spilled material with nonflammable inert absorbent. Shovel the material into waste container and seal. Do not allow the spilled product to enter public drainage system or open water courses. Wear appropriate protective equipment and clothing during clean-up. Ventilate the contaminated area. **DO NOT USE SAWDUST**

**Evacuation Procedures**

Isolate area. Keep unnecessary personnel away.

**Special Procedures**

None

## * * * Section 7 - Handling and Storage * * *

**Handling Procedures**

Do not get this material in your eyes, on your skin, or on your clothing. Use this product with adequate ventilation. Avoid breathing fumes if this product is used at high temperatures. When adhesive resin is combined with adhesive hardener, vapors and a moderate amount of heat may be released. Avoid breathing these vapors. Keep this product from heat, sparks,

or open flame. Wash thoroughly after handling. Remove contaminated clothing and launder before reuse.

**Storage Procedures**

Keep the container tightly closed and store in a cool, well-ventilated place. AVOID PROLONGED STORAGE OVER 100ºF.

## * * * Section 8 - Exposure Controls / Personal Protection * * *

**Exposure Guidelines**

Aliphatic Amine OSHA 0.1 mg/$m^3$ skin
Calcium Silicate OSHA Pel-TWA 5.0 Mg/$m^3$
Colloidal Silica OSHA Pel-TWA 5.0 Mg/$m^3$
Modified Aliphatic Polyamine NE

**Engineering Controls**

Good general ventilation required. Use local exhaust if necessary.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Eyes/Face**

Wear chemical goggles; face shield (if splashing is possible).

**Personal Protective Equipment: Skin**

Use impervious gloves. The use of neoprene gloves is recommended. Use of protective coveralls and long sleeves is recommended.

**Personal Protective Equipment: respiratory**

If ventilation is not sufficient to effectively remove vapors and fumes, appropriate NIOSH/MSHA respiratory protection must be provided.

**Personal Protective Equipment: General**

Use good industrial hygiene practices in handling this material.

## * * * Section 9 - Physical & Chemical Properties * * *

| | | | |
|---|---|---|---|
| **Appearance**: | White to Yellow | **Odor**: | Amine |
| **Physical State**: | Paste | **pH**: | NA |
| **Vapor Pressure**: | NA | **Vapor Density**: | NA |
| **Boiling Point**: | >200ºC | **Melting Point**: | NA |
| **Solubility ($H_2O$)**: | Very slight | **Weight per gal**. | 10.3240 |
| **Freezing Point**: | NA | **Particle Size**: | NA |
| **Softening Point**: | NA | **Evaporation Rate**: | NA |
| **Viscosity**: | NA | **Bulk Density**: | NA |
| **Percent Volatile**: | NA | **Molecular Weight**: | mixture |

**Physical Properties: Additional Information**

None

## * * * Section 10 - Chemical Stability & Reactivity Information * * *

**Chemical Stability**

Stable

**Chemical Stability: Conditions to Avoid**

Keep container tightly closed. Keep away from incompatible materials and excessive heat.

**Incompatibility**

This product may react with oxidizing agents and strong acids.

**Hazardous Decomposition**

Carbon monoxide, ammonia, and hydrogen cyanide.

**Hazardous Polymerization**

When mixed with an epoxy resin, an irreversible, exothermic polymerization reaction occurs, liberating vapors and a moderate amount of heat.

## * * * Section 11 - Toxicological Information * * *

**Acute Toxicity**

**A: General Product Information**

Aliphatic Amine
Oral LD50, Rat 1750 mg/kg (Estimate)
Dermal LD50, Rabbit >2000 mg/kg (no deaths)
Inhalation LC50, Rat >700 ppm / 1 hour (no deaths)

**B: Component LD50/LC50**

**Polyethylene (9002-88-4)**
Inhalation LC50 Mouse: 12 gm/m3/30M

**Triethylenetetramine (112-24-3)**
Oral LD 50 Rat: 2500 mg/kg
oral LD50 Mouse: 1600 mg/kg
Dermal LD50 Rabbit: 805 mg/kg

**Phenol (108-95-2)**
Inhalation LC50 Rat: 316 mg/m3
Oral LD50 Rat: 317 mg/kg
Oral LD50 Mouse: 270 mg/kg
Dermal LD50 Rabbit: 630 mg/kg

**Carcinogenicity**

**A: General Product Information**

No data available for product.
Phenol induced tumors on the skin of mice and promoted the carcinogenic effect of other substances.

**B: Component Carcinogenicity**

**Polyethylene (9002-88-4)**
IARC: Monograph 19, Supplement 7; 1987 (Group 3 (not classifiable))

**Phenol (108-95-2)**
ACGIH: A4 - Not Classifiable as a human Carcinogen
IARC: Monograph 47; 1989 (Group 3 [not classifiable])

**Epidemiology**

No data available for product.

**Neurotoxicity**

No data available for product.
CNS depression can develop rapidly after phenol ingestion. Long-lasting behavioral changes occurred in a survivor of acute phenol poisoning.

**Mutagenicity**

No data available for product.
Phenol has been genotoxic in several short-term tests in bacteria. Phenol has also induced sister chromatic exchanges in human cells and mutations in hamster cells. Increased chromosome aberrations were seen in lymphocytes from persons occupationally exposed to phenol.

**Teratogenicity**

No data available for product.
Phenol has been embryotoxic or fetotoxic, but not teratogenic, in experimental animals.

**Other Toxicological Information**

None.

## * * * Section 12 - Ecological Information * * *

**Ecotoxicity**

No data available for this product.

**Environmental Fate**

No data is available concerning environmental fate, biodegradation, or bioconcentration for this product.

## * * * Section 13 - Disposal Considerations * * *

**US EPA Waste Number & Descriptions**

**A: General Product Information**

Wastes may be classified as D002 corrosive wastes. Wastes must be tested to determine applicable waste codes.

**B: Component Waste Numbers**

**Phenol (108-95-2)**

RCRA: waste number U188

**Disposal instructions**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

## * * * Section 14 - Transportation information * * *

**US DOT Information**

**Shipping Name: CORROSIVE LIQUID, N.O.S. (ALIPHATIC AMINE)**
**Hazard Class: 8**
**UN/NA#: UN 1760**
**Packing Group: III**
**Required Label(s): CORROSIVE**
**Additional Info.:** None

**International Transportation regulations**

No additional information.

## * * * Section 15 - Regulatory Information * * *

**US Federal Regulations**

**A: General Product Information**

No additional information.

**B: Component Information**

This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

**Phenol (CAS# 108-95-2) % by weight: 0-5%**

**State Regulations**

**A: General Product Information**

No additional information.

**B: Component Information**

| Component | CAS# | CA | FL | MA | MN | NJ | PA |
|---|---|---|---|---|---|---|---|
| Polyethylene | #9002-88-4 | N | N | N | N | N | N |
| Triethylenetetramine | #112-24-3 | N | Y | Y | N | Y | Y |
| Phenol | #108-95-2 | Y | Y | Y | Y | Y | Y |

**Other Regulations**

**A: General Product Information**

Components of this product have been checked against the non-confidential TSCA inventory by CAS registry number. Components not identified on this non-confidential inventory are exempt from listing (i.e. polymers) or are listed on the confidential inventory as declared by the supplier.

**B: Component Information (Canada)**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

| Component | CAS # | % | Minimum Concentration |
|---|---|---|---|
| Triethylenetetramine | #112-24-3 | 1 to 10 | 0.1% item 1629(1669) |
| Phenol | #108-95-2 | 0 to 5 | 1% item 1261 (1374) |

All identified ingredients are on the Canadian Domestic Substances List.

## * * * Section 16 - Other Information * * *

**Other Information**

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration.

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**This is the end of MSDS # AMER-011**