

**1. Product and company Identification**

Product Name : PAA-03E
Synonyms : Polyallylamine ethanol solution
Product Use : Coating
Supplier : GHEN MATERIALS LLC
Address : 234 10th Street Suite 516 , Jersey City, NJ 07302 USA
General Information : TEL 201-604-6231 FAX 201-604-6266
Emergency Contact Number : TEL 1-800-255-3924(CHEMTEL 24 hours for USA, Canada)

2. Hazardous identification**GHS Classification:**

Health	Environmental	Physical
<ul style="list-style-type: none"> Acute Toxicity: Oral-Category 5 Eye Damage/ Eye irritation- Category 2A-2B Germ Cell Mutagenicity-Category 1B Toxic to Reproduction- Category 1A Specific target organ systemic toxicity (single exposure)- Category 3 (Respiratory tract irritation, Narcotic effects) Specific target organ systemic toxicity (repeated exposure)- Category 1 (Liver), Category 2 (Nervous system) 	<ul style="list-style-type: none"> Aquatic Hazard (Acute)- Category 2 	<ul style="list-style-type: none"> Flammable Liquids- Category 2

GHS Label:**Signal Word**

- DANGER

Hazard Statements

- Highly flammable liquid and vapor
- May be harmful if swallowed
- Causes serious eye irritation
- May cause genetic defects
- May damage fertility or the unborn child
- May cause drowsiness or dizziness
- May cause respiratory irritation
- Causes damage to organs (liver) through prolonged or repeated exposure
- May causes damage to organs (Nervous system) through prolonged or repeated exposure

Precautionary Statements

- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/hot surfaces- no smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/ equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area.
- Avoid release to environment.
- Wear protective gloves/protective clothing/eye protection/face protection.



	<ul style="list-style-type: none"> • Use personal protective equipment as required • Call a physician/doctor if you feel unwell. • IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing, rinse skin with water/shower. • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. • IF exposed: immediately call a POISON Center or doctor/ physician. • If eye irritation persists, get medical advice/treatment. • In case of fire, Use for extinction: CO2, Powder or water spray. • Store in secure manner. • Store in ventilated place. Keep container tightly closed. • Dispose of contents/container in accordance with local/ Federal regulations.
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3. Composition / Information on Ingredients

	Chemical name	Wt %	CAS No.
A	Homopolymer of 2-propen-1-amine	20	30551-89-4
B	Ethanol	77-79	64-17-5
C	Water	1-3	7732-18-5

4. First Aid Measures

Eye contact

Gently rinses the affected eyes with clean water for at least 15 minutes.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.
A delay of only seconds may increase the injury.

Skin

Remove contaminated clothing, shoes and socks from affected area as quickly as possible.
Wash the affected area under running water.
If irritation persists, Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

Inhalation

Remove the victim from the contamination immediately to fresh air. Arrange for transportation to the nearest medical facility for examination and treatment by a physician as soon as possible

Ingestion

Rinse mouth with water. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

5. Fire Fighting Measures

General information

Keep personnel removed from and upwind of fire.
Firefighters should wear proper protective equipment.
Toxic gases (carbon monoxide and nitrogen oxides) will form upon combustion.



Extinguish Media

Use water spray, foam and dry chemical or carbon dioxide.

6: Accidental Release Measures

General information

Evacuate non-essential personnel. Eliminate all sources of ignition and ventilate the area.
Use proper personal protective equipment as indicated in Section 8

Spills/Leaks

Absorb spill with inert material (e.g. dry sand or earth) then place in a chemical waste containers.
Prevent spills from entering sewers, watercourses or areas.
Biological treatment is not effective.

7. Handling and Storage

Handling

Use only in the well-ventilated areas. Avoid contact with skin or eyes.
Shut off all sources of ignition during use and until all vapors (odors) are gone.
To prevent contact, wear rubber gloves and protective eyeglasses or chemical safety goggles.
Make available in the work area emergency shower and eyewash.

Storage

Keep container tightly closed when in not use.
To avoid corrosive, store in closed acid-resistant (e.g. polyethylene) containers.
Avoid long storage periods since the product degrades with age

8. Exposure Controls / Personal Protection

Engineering controls

Use exhaust ventilation to keep airborne concentration below exposure limit. Make emergency shower and eyewash available in the work area.

Control Parameters :

(B) Ethanol : ACHIH TLV (2007) TWA 1,000ppm

Personal protective equipment (PPE)

- Eyes : Wear protective eyeglasses or chemical safety goggles
- Skin : Wear appropriate rubber gloves to prevent skin exposure
- Clothing : Wear appropriate protective clothing to prevent skin exposure
- Respirators : Wear vapor respirator. Be sure to use an approved/certified respirator or equivalent.

9. Physical and Chemical Properties

- Odor/Appearance : pale yellow-yellow liquid, ethanol odor
- Flash Point : 13°C (55°F) (ethanol)
- Auto ignition temperature : 363°C (685°F) (ethanol)
- Explosion limit : 3.3-19.0 VOL% (ethanol)
- Boiling Point : 78°C (172°F) (ethanol)
- Melting Point : not applicable
- Vapor Pressure : 44mmHg (ethanol)
- Freezing point : not determined
- Vapor Density (Air=1) : 1.59(ethanol)
- Viscosity (@100°C (212°F)) : about 20mPa.s
- Specific Gravity : 0.86
- pH Value (5% aq) : not determined



Solubility in water : very soluble
Flammability : flammable
Evaporation Rate (Water=1) : not determined

10. Stability and Reactivity

Chemical stability

Stable at room temperature in closed containers under normal storage and handling conditions.
Incompatible with oxidizing agent, bases, metals and anionic materials
Hazardous polymerization: Not occur

11. Toxicological Information**Acute Toxicity Values**

(A) Oral LD₅₀ (mouse) : 1,600mg/Kg (tested as hydrochloride)

(B) Oral LD₅₀ (rat) : 7,060mg/Kg

Other:

Mutagenic effects: (A) : Negative in the Ames test

Sub-chronic toxicity, chronic toxicity, carcinogenic effects, effects on the reproductive systems, teratogenic effects: not available

12. Ecological Information

Biodegradability : no data available

Bioaccumulation : (A) Not bioaccumulatable (Carp: tested as the hydrochloride)

Fish toxicity : (A) 48hr-Tlm 0.42 ppm(Aoryzias latipes : tested as the hydrochloride)

13. Disposal Considerations

Follow all regulations in local, Federal law. This material may be burned in a chemical incinerator equipped with an after-burner and scrubber. Do not dump into sewers, on the ground or into any body of water

14. Transport Information**U.S. Department of Transportation (DOT)**

UN Number : UN1170
Proper Shipping Name : Ethanol Solution (80%)
Class : Class 3
Packing Group : II
Label : FLAMMABLE

15. Regulatory Information**U.S. Federal Regulations**

Toxic Substances Control Act (TSCA): All components of this product are included on the TSCA inventory.

SARA 313 Regulated Chemical(s)

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

16. Other Information

The Hazardous Rating

Health : 2
Flammability : 2
Reactivity : 0



Date Prepared: 5/1/2011

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