Material Safety Data Sheet

Revision Date: 2/27/89 NA = Not Applicable NE = Not Established

Section 1. General Information

Product name: **IPANOL GEL – EPOXY RESIN – Component A**

Product I.D.: **EPOXY GEL RESIN – Component A**

Chemical Family: Modified Bisphenol-A Polyglycidyl Ether

HMIS Hazard Codes: Health: 2
Fire: 1
Reactivity: 2

DOT Hazard Classification: Not regulated

UN/NA Number: NA

DOT Labels: NA

Manufacturer: **IPA Systems, Inc.**
2745 North Amber Street, Philadelphia, Pa. 19134
Phone: 800-523-3834 • 215-425-6607
Fax: 215-425-6234
E-mail: info@ipasystems.com
Website: www.ipasystems.com

Emergency Phone Number - Chemtrec: 800-424-9300

Section 2. Hazardous Ingredients

Name:	C.A.S. No.	Percent	OSHA TWA ppm	ACGIH TWA ppm
Bisphenol-A based epoxy resin	25068-38-6	85	NE	NE
Reactive modifier	Trade secret	15	NE	NE
Epichlorohydrin	106-89-8	< 5 ppm	2*	2*

* Potential contribution to overall exposure is possible via skin absorption.

Section 3. Physical Data

Boiling Point (F): > 200°F

Specific Gravity (H_2O = 1): 1.1

Vapor Pressure (mm Hg.): < 0.1 at 20°C

Percent Volatile by Volume: < 1.0

Vapor Density (Air = 1): > 1

Evaporation Rate (BAc = 1): < 1

Solubility in Water: Practically insoluble

pH: NA

Volatile Organic Compounds: NA

Appearance and Odor: Clear light colored mobile liquid; characteristic acrylate odor

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Section 4. Fire and Explosion Hazard Data

Flash Point: >200°F Setaflash

Flammable Limits: LEL = NE UEL = NE

Autoignition Temperature: NE

Extinguishing Media: Small fires: Carbon Dioxide or Dry Chemical. Large fires: Aqueous Foam or Water

Special Fire Fighting Procedures: Remove all ignition sources. Firefighters should wear self-contained breathing apparatus and complete personal protective equipment when entering confined spaces where there is the potential for exposure to vapors or products of combustion.

Unusual Fire and Explosion Hazards: High temperatures and fire conditions may cause rapid and uncontrolled polymerization which can result in explosions and the violent rupture of storage vessels or containers. Avoid the use of a stream of water to control fires since frothing can occur.

HMIS Hazard Codes:

Health:	2
Fire:	1
Reactivity:	2

Section 5. Health Hazard Data

Carcinogen – NTP Program: Yes Carcinogen – IARC Program: Yes

Emergency and First Aid Procedures:

Eye Contact: Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention immediately.

Skin Contact: Remove contaminated clothing. Immediately wash skin with soap and water for 15 minutes. Pay particular attention to hair, nose, ears and other areas not easily cleaned. Solvents should not be used to clean skin because of increased penetration potential. Wash contaminated clothing before reuse and dispose of contaminated shoes. Note to physician: Effects can be delayed 24 – 48 hours.

Inhalation: In case of exposure to high concentration of vapor or mist, remove person to fresh air. If not breathing, give artificial respiration and get medical attention. If breathing is difficult, get medical attention immediately.

If swallowed: Get medical attention.

Symptoms:

Eye Contact: Contains materials that may cause eye injury that may persist for several days

Skin Absorption: Contains materials that may be slightly toxic.

Skin Contact: Contains materials that may cause moderate skin injury (redness and swelling). Sensitizer – may cause allergic skin reaction that can be severe in certain individuals.

Ingestion: No specific information available. Contains materials that may be slightly toxic.

Inhalation: Heating can generate vapors that could cause headaches, nausea, dizziness and respiratory irritation if inhaled.

Chronic Effects of Overexposure: No specific information available. Epichlorohydrin has been reported to produce cancer in laboratory animals and epidemiological studies present "weak" evidence of cancer risk to humans. Epichlorohydrin is listed in the IARC Monographs and by NTP.

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Section 6. Reactivity Data

Stability: Unstable

Conditions to Avoid: Storage above 120°F, exposure to light, loss of dissolved air, loss of polymerization inhibitor, contamination with incompatible materials.

Incompatibility (Materials to Avoid Contact): Polymerization initiators including peroxides, strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust or strong bases. Contamination with strong acids, amines or mercaptans can cause polymerization.

Hazardous Polymerization: May occur.

Hazardous Decomposition Products: Fumes produced when heated to decomposition may include: Carbon monoxide, carbon dioxide.

Section 7. Procedures for Safe Handling and Use

Spill Response: Spontaneous polymerization can occur. Eliminate ignition sources. Use eye and skin protection. Place containers in a well-ventilated area. Absorb with inert material and collect for disposal. Flush area with water. Keep washings out of surface waters, sewers and waterways entering or leading to surface waters.

Spills may be reportable to the National Response Center (800-424-8802).

Waste Disposal Method: Incinerate or use biological treatment in accordance with federal, state and local regulations. This material is a hazardous waste under current RCRA regulations because of reactivity.

Environmental Data: Keep out of surface waters, sewers and waterways entering or leading to surface waters. Notify authorities if an exposure to the general public or environment occurs or is likely to occur. The reportable quantity for a leak of this product is 50,000 lbs., which is based on the presence of epichlorohydrin at approximately 2 – 3 ppm.

Section 8. Control Measures

Eye Protection: Avoid eye contact. Wear chemical splash goggles.

Skin Protection: Wear impervious gloves (neoprene) when handling this material. A combination of barrier cream, applied before exposure, and neoprene gloves is recommended. Do not apply cream after exposure.

Ventilation: Local exhaust recommended to control exposure that may result from operations generating aerosols and hot operations generating vapors. Mechanical ventilation not recommended to control exposure for operations generating aerosols or vapors.

Respiratory Protection: When exposed to aerosols or vapors, use full-face organic vapor cartridge respirator with particulate pre-filter. In emergency situations or when in confined spaces, use self-contained breathing apparatus or other air supplied full-face respirator.

Prevention of Accidental Ingestion: Wash hands after handling and before eating.

Other Protective Equipment: For operations where contact can occur, use a face shield, impervious body covering and boots. A safety shower and eye wash facility should be available. For routine laboratory operations, an impervious apron and gloves are recommended.

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Section 9. Special Precautions

Hygienic Practices in Handling and Storage: Avoid contact with skin and eyes. Avoid breathing vapor. Keep container closed when not in use. Avoid prolonged exposure to light. Store product at temperatures below 120°F. Remove all contaminated clothing, shoes, belts and other leather goods immediately. Incinerate leather goods (including shoes). Wash contaminated clothing thoroughly before reuse. Wash exposed skin areas thoroughly with soap and water immediately after handling. Severe burning may begin minutes after skin contact. Solvents should not be used to clean skin because of increased penetration potential.

Precautions for Repair and Maintenance of Contaminated Equipment: Wash mixing equipment with water.

Other Precautions: Store product at temperatures below 120°F. Keep from freezing.

Section 10. Regulatory Information

RCRA Status:
This material is a hazardous waste under RCRA regulations because of reactivity.

State R-T-K Composition Information:

Component	Wt. %	Pennsylvania	Massachusetts	Canada
Epichlorohydrin (CAS# 106-89-8)	< 5 ppm	Yes	Yes	Yes

SARA / Title III Section 313 – Toxic Chemicals List:

Component	Wt. %
Epichlorohydrin (CAS# 106-89-8)	< 5 ppm

Toxic Substances Control Act (TSCA):
All ingredients of this product are listed on the TSCA inventory. This product contains the following chemical(s) that require export notification under Section 12 (b) of the Toxic Substances Control Act:

Bisphenol-A diglycidyl ether

California Proposition 65 Information:

This product contains the following chemicals that have been designated as cancer and/or reproductive hazards under California Proposition 65:

Component	Wt. %
Epichlorohydrin (CAS# 106-89-8)	< 5 ppm

The information of this data sheet represents our current and best opinion as to the proper use and handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.