

## Material Safety Data Sheet

### Section 1 – Chemical Product and Company Identification

Product Name: GSP 1339-1A  
 Product Use: Component of Epoxy.  
 Effective Date: 5/14/05

Manufactured by:  
 G.S. Polymers, Inc.  
 195 Arovista Ave.  
 Brea, CA 92821  
 (714) 672-0567      Fax: (714) 672-0987

In an emergency call CHEMTREC @ 800-424-9300

### Section 2 – Composition/Information on Ingredients

Hazardous Ingredients(s)	%(by wt.)	ACGIH TLV	CAS NO.
Epichlorohydrin – Bisphenol A	up to 60%	N/E	1675-54-3
Aliphatic Glycidyl Ether	up to 10%	N/E	68609-97-2

### Section 3 – Hazards Identification

<b>Eye Contact</b>	Product is moderately irritation to the eyes.
<b>Skin Contact</b>	Product is moderately irritating to the skin and may cause skin sensitization. Prolonged or repeated liquid contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis.
<b>Inhalation</b>	Product may cause respiratory tract irritation, However, because of its low volatility respiratory irritation is not likely unless the material is heated or mists are formed.
<b>Ingestion</b>	Not expected to be a relevant route of exposure. Product has a low order of acute oral toxicity.
<b>Signs and Symptoms</b>	Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives.
<b>Aggravated Medical Conditions</b>	Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product.

### Section 4 – Emergency and First Aid Procedures

<b>Eye Contact</b>	Flush eyes with plenty of water for 15 minutes while holding eyelid open. Get medical attention.
<b>Skin Contact</b>	Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.
<b>Inhalation</b>	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

**Ingestion** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

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#### Section 5 – Fire Fighting Measures

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**Flash Point:** >200 F (closed cup)  
**UEL** No Data  
**LEL** No Data  
**Extinguishing Media** Carbon dioxide, dry chemical and foam  
**Special Fire Fighting Procedures:** Use self-contained breathing apparatus.

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#### Section 6 – Accidental Release Measures

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**For major spills call Chemtrec (800) 424-9300.**

**After Spillage** Sweep and scrape into container for proper disposal. Flush contaminated areas with water.

**Waste Disposal** Incinerate or landfill in accordance with local pollution regulation and ordinance.

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#### Section 7 – Handling and Storage

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Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Handle in accordance with the potential hazard of the curing agent used.

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#### Section 8 – Exposure Controls/Personal Protection

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**Respiratory Protection** Avoid prolonged or repeated breathing of vapors. Use a NIOSH-approved respirator as required to prevent overexposure. In accord with 29 CFR 19140.134, use either a full-face, atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**Protective Clothing** Avoid contact with eyes. Wear chemical goggles if there is likelihood of contact with eyes. Avoid prolonged or repeated contact with skin. Wear chemical-resistant gloved and other clothing as required to minimize contact.

**Additional Protective Measures** Use ventilation as required to control vapor concentrations. Eye wash fountains and safety showers should be available for emergency use.

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#### Section 9 – Chemical and Physical Properties

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**Physical Form:** .....Liquid  
**Color:** .....Clear – Amber  
**Specific Gravity:** ..... 1.16  
**Bulk Density:** .....9.70 lbs/gal  
**Vapor Pressure (mmHg at 21C (70F)):** .....No Data  
**Vapor Density (Air = 1):** .....No Data  
**Boiling Point:** .....No Data  
**Melting Point:** .....No Data

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**Section 10 – Stability and Reactivity**

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<b>Stability</b>	Stable
<b>Conditions to Avoid</b>	Excess heating over long time degrades the resin.
<b>Incompatibility</b>	Strong oxidizing agents, acids and bases.
<b>Hazardous Decomposition Products</b>	Carbon Monoxide and/or carbon dioxide.
<b>Hazardous Polymerization</b>	May occur
<b>Conditions to Avoid</b>	With excess of aliphatic amine curing agents.

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**Section 11 – Toxicology Information**

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No Data

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**Section 12 – Ecological Information**

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No Data

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**Section 13 – Disposal Considerations**

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**Waste Disposal:** Comply with all Federal, State and Local Regulations.

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**Section 14 – Transportation Information**

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**Department of Transportation:** Not Regulated

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**Section 15 – Regulatory Information**

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**US Federal Regulations:**

Occupational Safety and Health Act (OSHA): This product is considered to be a hazardous chemical under the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

**SARA Title III: Section 313: None**

TSCA Section 8(b) – Inventory Status: Chemical component listed on TSCA Inventory

TSCA Section 12(b) – Export Notification: This product contains chemicals which are regulated by TSCA 12(b) Regulation and it is required that proper export notification shall be sent to EPA prior to shipping out of the United States America.

CAS Number: 1675-54-3

Chemical Name: Bisphenol A Diglycidyl Ether

**State Regulations:**

**California Proposition 65:** This product contains the following chemicals which are known to the State of California to cause cancer and/or birth defects

Epichlorohydrin                      CAS# 106-89-8                      < 1 ppm

**New Jersey Right-to-Know:** The following is required composition information:



## Material Safety Data Sheet

### Section 1 – Chemical Product and Company Identification

Product Name: GSP 1339-1B  
 Product Use: Epoxy Hardener  
 Effective Date: 5/14/05

Manufactured by:  
 G.S. Polymers, Inc.  
 195 Arovista Ave.  
 Brea, CA 92821  
 (714) 672-0567 Fax: (714) 672-0987

In an emergency call CHEMTREC @ 800-424-9300

### Section 2 – Composition/Information on Ingredients

Hazardous Ingredients(s)	%(by wt.)	CAS NO.
Fatty Acid Polyamides	up to 67%	68410-23-1
Tetraethylenepentamine (TEPA)	up to 33%	112-57-2
Triethylenetetramine (TETA)	less than 10%	112-24-3

#### OSHA (ACGIH) EXPOSURE LIMITS

CAS#	TWA		STEL		CEILING	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
68410-23-1	N/A (N/E)	N/A (N/E)	N/A (N/E)	N/A (N/E)	N/A (N/E)	N/A (N/E)
112-24-3	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)
112-57-2	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)

N/E Not Established. All values in ( ) are U.S. ACGIH (American Conf. of Gov. Indust. Hygienists)-TLV; All others are OSHA-PEL.

### Section 3 – Hazards Identification

**Primary Route(s) of Entry:** Eye Contact, Skin Contact, Inhalation, Ingestion

**Skin Contact:** May be extremely irritating to the eyes and may cause severe damage including blindness. Vapors may be irritating. May cause skin sensitization (allergy) evidenced by rashes, especially hives.

**Eye Contact:** Product may be mildly irritating to the skin. Product may cause skin sensitization.

**Inhalation:** Mists or vapors may produce severe respiratory irritation.

**Ingestion:** Not expected to be a relevant route or exposure, however, product may produce irritation or mouth and throat and the gastrointestinal tract.

**Additional Hazards:** Cutting or grinding of cured material may release Calcium Carbonate and Silicon Dioxide which may present a respiratory hazard.

**Read the entire MSDS for a more thorough evaluation of the hazards.**

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**Section 4 – First Aid Measures**

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- Eye Contact:** Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Seek medical advice.
- Skin Contact:** Remove contaminated clothing or shoes, wipe excess from skin and flush with plenty of water for at least 15 minutes. Use soap if available or follow by washing with soap and water. Do not reuse clothing until thoroughly cleaned. Get medical attention.
- Inhalation:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
- Ingestion:** Do not induce vomiting. Give one glass of water unless victim is drowsy, convulsing, or unconscious. Seek medical attention.

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**Section 5 – Fire Fighting Measures**

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- Flash Point:** >200 F
- Extinguishing Media:** Use water fog, “Alcohol” Foam, dry chemical or CO<sub>2</sub>. Do not use a direct stream of water. Product will float. Water of foam may cause frothing which can be violent, especially sprayed into containers of hot or burning liquid.
- Fire Fighting Procedures:** Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunkercoats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.
- Fire and Explosion Hazards:** Delayed lung damage (pulmonary edema) can be experienced after exposure to combustion products, sometimes hours after the exposure. Nitrogen oxides and nitrogen containing organic compounds may be released upon combustion.

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**Section 6 – Accidental Release Measures**

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**For major spills call Chemtrec (800) 424-9300.**

**Containment Techniques (Removal of ignition sources, diking etc.):** Stop the leak, if possible. Reduce vapor spreading with a water spray. Shut off or remove all ignition sources. Construct a dike to prevent spreading (includes molten liquids until they freeze).

**Clean-up Procedures:** If recovery is not feasible, mix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

**Other Emergency Advice:** Wear protective clothing, boots, gloves, and eye protection. At elevated temperatures a cartridge mask National Institute for Occupational Safety and Health (NIOSH) approved for ammonia may be appropriate.

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**Section 7 – Handling and Storage**

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**Handling Precautions:** Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well ventilated work space. When handling, do not eat, drink, or smoke.

**Storage:** Keep away from acids, oxidizers. Keep in cool, dry ventilated storage and in closed containers. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store in reactive metal containers.

**Other Precautions:** Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA). Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Cancer-causing nitrosamines could be formed.

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 Section 8 – Exposure Controls/Personal Protection
 

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- Eye Protection:** Wear chemical goggles if there is potential contact with eyes.
- Hand/Skin Protection:** Wear chemical-resistant gloves and protective clothing.
- Respirators:** Avoid breathing vapor/mists. Use a NIOSH-approved respirator as required to prevent overexposure. In accord with 29 CFR 1910.134, use either a full-face, atmosphere-supplying respirator or an air-purifying respirator for organic vapors. Avoid breathing vapors which may be produced under some conditions such as heating or applications of uncured material in large surface areas (e.g., flooring and painting). Avoid breathing aerosols and mists which may be formed by various methods of application.

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 Section 9 – Chemical and Physical Properties
 

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<b>Physical Form</b> .....	Viscous Liquid
<b>Color</b> .....	Amber
<b>Odor</b> .....	No Odor
<b>Boiling Point</b> .....	> 356 F (180 C)
<b>Solubility in Water</b> .....	Slightly Soluble
<b>Specific Gravity</b> .....	0.98
<b>Bulk Density</b> .....	8.20
<b>Vapor Pressure</b> .....	Not Established

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 Section 10 – Stability and Reactivity
 

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- Stability:** This is a stable material.
- Incompatibilities:** Avoid contact with strong oxidizing agents. Reaction with epoxy resins can produce considerable heat.
- Decomposition Products:** Nitrogen oxides, carbon monoxide and unidentified organic compounds (some containing nitrogen) may be formed during thermal or oxidative decomposition or combustion.
- Hazardous Polymerization:** Will not occur.

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 Section 11 – Toxicology Information
 

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No data established for product as a whole.

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 Section 12 – Ecological Information
 

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No Data

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 Section 13 – Disposal Considerations
 

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**Waste Disposal Method:** Dispose in accordance with federal, state and local regulations.

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 Section 14 – Transportation Information
 

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**DOT Non-Bulk Shipping Name:** Tetraethylenepentamine Mixture

**DOT Hazard Class:** 8

**DOT ID Number:** UN 2320

**Packing Group:** III

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 Section 15 – Regulatory Information
 

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**US Federal Regulations:****Toxic Substances Control Act (TSCA)**

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**OSHA Hazard Communication Standard (29CFR1910.1200) hazard classes:**

Corrosive. Sensitizer. Toxic by skin absorption.

**EPA SARA Title III Section 312 (40CFR370) hazard class**

Immediate Health Hazard. Delayed Health Hazard

**EPA SARA Title III Section 313 (40CFR372) toxic chemicals above “de minimis” level are:** None

**State Regulations:**

**California Proposition 65:** Substances known to the state of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the “Safe Drinking Water and Toxic Enforcement Act of 1986”:

None

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 Section 16 – Other Information
 

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HMIS RATINGS:      Health              Flammability              Reactivity  
    3    1    0

0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of G.S. Polymers’ product safety program. It is not intended to constitute performance information concerning the product. No Express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. G.S. Polymers does not undertake to furnish advice on such matters.

Prepared by Gerald Salladin \_\_\_\_\_ Date \_\_\_\_\_

Title: Owner

Company: G.S. Polymers, Inc.

Rev Date: 5/14/05