Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

Product Name: GSP 1360-2A
Product Use: Epoxy Resin
Effective Date: 6/27/03

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.)	OSHA (ACGIH) TLV	CAS NO.
Epoxy Resin (Diglycidyl Ether of Bis-Phenol A)	up to 75%	N/E	25068-38-6

Section 3 – Hazards Identification

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

Skin Contact: May cause alleregic skin reactions and skin sensitization.

Eye Contact: May cause eye irritation.

Ingestion: Oral Toxicity is low. Not expected to cause severe health hazards.

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.

Section 4 – First Aid Measures

Eyes: For eye contact, immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water.

Skin: For skin contact, wash with large amounts of running water, and soap, if available, for 15 minutes. Remove contaminated clothing and shoes. Get immediate medical attention. Discard or decontaminate clothing before re-use and destroy contaminated shoes.

Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Ingestion: If swallowed, give at least 3-4 glasses of water but do not induce vomiting. If vomiting occurs, give water again. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention. Have physician determine whether vomiting or stomach evacuation is necessary.

Overexposure Effects: Irritation, sensitization and dermatitis.

Medical Conditions Aggravated by Exposure: Allergy, eczema or skin conditions.

Section 5 – Fire Fighting Measures

Flash Point: >200 F Epoxy Resin; Closed Cup

Extinguishing Media: Carbon Dioxide, foam, dry chemical, water spray.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

Section 6 – Accidental Release Measures

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

Spill or Leak Procedures: Avoid all personal contact. Take up with absorbent material. Shovel into closable containers. Flush contaminated area with water.

Section 7 – Handling and Storage

Handling Precautions: Avoid contact with eyes, skin and clothing. Avoid breathing vapor, mist or spray. Use only with good ventilation. Promptly remove wet contaminated non-impervious clothing and wash before reuse. Destroy contaminated leather and absorbent shoes. Individuals should wash thoroughly after handling. For industrial use only.

Storage: Store in cool, dry area in sealed containers. Keep containers closed to prevent moisture absorption and contamination.

Section 8 – Exposure Controls/Personal Protection

Personal Protective Equipment: Wear appropriate equipment to prevent eye or skin contact. Use of barrier cream recommended.

Eye Protection: Wear splash resistant safety goggles.

Skin Protection: Wear impervious gloves.

Ventilation: Good general mechanical ventilation and local exhaust.

Respirators: Organic chemical cartridge respirator, if needed.

Section 9 – Chemical and Physical Properties

Physical Form.....Viscous Liquid
Color.....Gray
Odor.....Slight
Boiling Point..... > 392 F (200 C)
Decompostion Temperature..... > 392 F (200 C)
Solubility in Water.....Slightly Soluable
Specific Gravity.....Not Established
Bulk Density.....Not Established
Vapor Pressure.....Not Established

Section 10 – Stability and Reactivity

Stability: This is a stable material.
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong oxidizing agents.
Instability Conditions: Avoid strong acids or bases in bulk and elevated temperatures
Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes.

Section 11 – Toxicology Information

This product has not been tested as a whole. Values below are estimated from available literature.

Acute Toxicity:

Oral LD50:	> 2000 mg/kg (Rat)
Dermal LD50:	> 2000 mg/kg (Rabbit)
Inhalation LC50:	No Data

Irritation Effects: This product is an eye and skin irritant by OSHA criteria.

Section 12 – Ecological Information

Not Established.

Section 13 – Disposal Considerations

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

Section 14 – Transportation Information

Deparment of Transportation: Not Regulated

Section 15 – Regulatory Information

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.

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

Section 16 – Other Information

HMIS RATINGS:	Health	Flammability	Reactivity
	2	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: 6/27/03

Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

Product Name: GSP 1360-2B
Product Use: Epoxy Hardener
Effective Date: 6/27/03

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/m3	ppm	mg/m3	ppm	mg/m3
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.

Section 4 – First Aid Measures

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, wip 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 on glass of water unless victim is browsy, convulsing, or unconscious. Seek medical attention.

Section 5 – Fire Fighting Measures

Flash Point: >200 F

Extinguishing Media: Use water fog, "Alcohol" Foam, dry chemical or CO2. don 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 exposedcontainers 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.

Section 6 – Accidental Release Measures

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, prepatatory 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.

Section 7 – Handling and Storage

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.

Section 8 – Exposure Controls/Personal Protection

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 uncored material in large surface areas (e.g., flooring and painting). Avoid breathing aerosols and mists which may be formed by varios methods of application.

Section 9 – Chemical and Physical Properties

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

Section 10 – Stability and Reactivity

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.

Section 11 – Toxicology Information

No data established for product as a whole.

Section 12 – Ecological Information

No Data

Section 13 – Disposal Considerations

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

Section 14 – Transportation Information

DOT Non-Bulk Shipping Name: Tetraethylenepentamine Mixture
DOT Hazard Class: 8
DOT ID Number: UN 2320
Packing Group: III

Section 15 – Regulatory Information

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

Section 16 – Other Information

HMIS RATINGS:	Health	Flammability	Reactivity
	3	1	0

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

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Prepared by Gerald Salladin_____Date_____
Title: Owner
Company: G.S. Polymers, Inc.
Rev Date: 6/27/03