



MATERIAL SAFETY DATA SHEET

ALUMBOND® LIQUID -H-411 3LBS. REPAIR KIT RESIN

Section I. Product Identification and Use

Manufacturer's Name: HY-POXY SYSTEMS, INC.

Address (Number Street): 5555 Export Blvd.

Address (City, State, Zip): Savannah, GA 31408

Telephone Number: 843- 363-5681

Emergency Telephone Number: CHEMREC 1-800-424-9300 Outside U.S.A.: 1-703-527-3887

Chemical Family: **Metal Filled Epoxy Resin**

Hazardous Materials Description and proper shipping name (49 CFR 172.101): Not Regulated

TSCA Inventory: All of the ingredients are listed on the TSCA inventory.

HMIS Labeling: Health: 2 Flammability: 1 Reactivity: 0

Section II. Hazardous Ingredients / Identity Information

<u>Ingredients</u>	<u>CAS Numbers</u>	<u>% WW</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Other Limits</u>
BisphenolA/EpichlorohydrinResin	25068-38-6	30-40	N.E.	N.E.	None
Phenolformaldehyde polymer, Glycidyl Ether	28064-14-4	1-2	N.E.	N.E.	None
Hydrophobic Silicon Dioxide, Amorphous	67762-90-7	0-1	20mppcf	10mg/m3	None
Aluminum Powder	7429-90-5	60-70	N.E.	15mg/m3	None

Section III. Physical/ Chemical Characteristics

Boiling point (°F): > 500°F

Vapor pressure (mmHg) @ 20°C: < 1mm

Weight per gallon: 15.4lbs.

Percent volatile by volume (%): 0

Vapor density (Air = 1): > 1

Evaporation rate (n-Butyl Acetate = 1): N.A.

Solubility in water: Insoluble

Appearance and odor: Silver paste, no odor

N.E. = Not established N.A. = Not applicable



MATERIAL SAFETY DATA SHEET

Section IV. Fire and Explosion Hazard

Flash point (method used): > 450°F (PMCC) Flammable limits: Upper: N.E. Lower: N.E.

Extinguishing media: Use water fog, foam, carbon dioxide (CO₂) or dry chemical

Special fire fighting procedures: Wear self-contained breathing apparatus and complete personal protective equipment. Remove all ignition sources. Use a water spray to cool fire exposed containers.

Unusual fire and explosive hazards: None known

N.E. = Not established N.A. = Not applicable

Section V. Health Hazard Data

Primary route(s) of entry: Inhalation, eyes

Health hazard/effects of over exposure:

Inhalation: Heated vapors may cause respiratory irritation.

Eyes: Moderately irritating.

Skin: Mildly irritating. May cause allergic reaction evidenced by rashes.

Ingestion: No specific information. Slightly toxic.

Chronic Effects of Overexposure: Prolonged contact with the skin may result in skin irritation and sensitization.

Carcinogenicity: This material is not considered to be carcinogenic by NTP, IARC or OSHA.

Mutagenicity (Ames Test): Both positive and negative results for CAS# 25068-38-6.

Medical conditions aggravated by exposure: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing skin or lung allergies may increase the chance of developing increased allergy symptoms.

Emergency and first aid procedures:

Inhalation: In case of exposure to a high concentration of vapor or mist, remove person to fresh air. Get medical attention if effects persist. Administer oxygen if necessary.

Eyes: Flush with plenty of water for at least 15 minutes and seek immediate medical attention.

Skin: Remove contaminated clothing and wash contact area with soap and water. Wash clothing before reuse and discard contaminated leather articles. Get medical attention if swelling or reddening occurs.

Ingestion: If appreciable quantities are swallowed, seek medical attention. Do not induce vomiting. Dilute by giving water or milk to drink if victim is conscious.

Section VI. Reactivity Data

Stability: Stable Conditions to avoid: Excessive heat.

Incompatibility (Materials to avoid): Strong oxidizing agents and mineral acids. Uncontrolled curing with amine curing agents in masses greater than 2 inches thick.

Hazardous decomposition products: Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, ammonia, and nitrogen oxides.

Hazardous polymerization: Will not occur.



MATERIAL SAFETY DATA SHEET

Section VII. Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Dike spill. Absorb with inert material and collect for disposal. Flush area with water. Prevent washings from entering waterways.

Waste disposal methods: Incinerate or use biological treatment in accordance with local, state and federal regulations. Dispose of as a hazardous waste according to local, state and federal regulations.

RCRA Hazardous Waste No.: N.A.

CERCLA Reportable Quantity: If this product becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

SARA TITLE III Chemicals: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered under applicable definitions, to meet the following categories: An immediate health hazard. This product contains no ingredients subject to SARA Title III Section 313.

Section VIII. Control Measures

Respiratory Protection: Wear a properly fitted NIOSH/MSHA approved respirator whenever exposure to vapor/mist is likely unless levels are below applicable limits.

Ventilation: Local exhaust is recommended when appropriate to control employee exposure. Mechanical is not recommended as the sole means of controlling employee exposure.

Protective gloves: For operations where contact can occur, wear impervious gloves (neoprene, nitrile).

Eye protection: Chemical splash goggles or safety glasses with side shields.

Other protective equipment: For operations where contact can occur, coveralls, apron and rubber foot covering are recommended. A safety shower and eye wash facility should be available.

Work/hygienic practices: Wash hands with soap and water after use and/or before breaks, lunch and at the end of work

Section IX. Preparation Date of MSDS

The foregoing technical information and recommendations are compiled from sources that are believed to be accurate and reliable. However, they are supplied without warranty or guarantee of any kind either expressed or implied. The purchaser is responsible for selecting and determining the suitability of products for purchaser's particular needs and we disclaim any responsibility for improper applications or misuse of our products in any manner whatsoever.



MATERIAL SAFETY DATA SHEET

ALUMBOND® LIQUID -H-411 3LBS. REPAIR KIT HARDENER

Section I. Product Identification and Use

Manufacturer's Name: HY-POXY SYSTEMS, INC.

Address (Number Street): 5555 Export Blvd.

Address (City, State, Zip): Savannah, GA 31408

Telephone Number: 843- 363-5681

Emergency Telephone Number: CHEMTREC 1-800-424-9300 Outside U.S.A.: 703-527-3887

Chemical Family: **Metal Filled Epoxy Resin**

Hazardous Materials Description and proper shipping name (49 CFR 172.101): Not Regulated

TSCA Inventory: All of the ingredients are listed on the TSCA inventory.

HMIS Labeling: Health: 2 Flammability: 1 Reactivity: 0

Section II. Hazardous Ingredients / Identity Information

<u>Ingredients</u>	<u>CAS Numbers</u>	<u>% WW</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Other Limits</u>
Triethylene tetramine	112-24-3	20-30	N.E.	N.E.	None
Polyamide Resin	68082-29-1	60-70	N.E.	N.E.	None

Section III. Physical/ Chemical Characteristics

Boiling point (°F): > 480°F

Vapor pressure (mmHg) @ 20°C: Not determined

Weight per gallon: 9.2 lbs.

Percent volatile by volume (%): 0

Vapor density (Air = 1): > 1

Evaporation rate (n-Butyl Acetate = 1): N.A.

Solubility in water: Insoluble

Appearance and odor: White paste, amine odor

N.E. = Not established N.A. = Not applicable



MATERIAL SAFETY DATA SHEET

Section IV. Fire and Explosion Hazard

Flash point (method used): > 240°F (PMCC) Flammable limits: Upper: N.E. Lower: N.E.

Extinguishing media: Use water fog, foam, carbon dioxide (CO₂) or dry chemical

Special fire fighting procedures: Wear self-contained breathing apparatus and complete personal protective equipment. Remove all ignition sources. Use a water spray to cool fire exposed containers.

Unusual fire and explosive hazards: Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat. Toxic fumes will be evolved if this material burns.

N.E. = Not established N.A. = Not applicable

Section V. Health Hazard Data

Primary route(s) of entry: Ingestion, skin absorption, inhalation, eyes

Health hazard/effects of over exposure:

Inhalation: Heated vapors may cause respiratory irritation.

Eyes: Moderately irritating.

Skin: Mildly irritating. May cause allergic reaction evidenced by rashes.

Ingestion: No specific information. Slightly toxic.

Chronic Effects of Overexposure: Prolonged contact with the skin may result in skin irritation and sensitization.

Carcinogenicity: This material is not considered to be carcinogenic by NTP, IARC or OSHA.

Mutagenicity (Ames Test): Both positive and negative results for CAS# 25068-38-6.

Medical conditions aggravated by exposure: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing skin or lung allergies may increase the chance of developing increased allergy symptoms.

Emergency and first aid procedures:

Inhalation: In case of exposure to a high concentration of vapor or mist, remove person to fresh air. Get medical attention if effects persist. Administer oxygen if necessary.

Eyes: Flush with plenty of water for at least 15 minutes and seek immediate medical attention.

Skin: Remove contaminated clothing and wash contact area with soap and water. Wash clothing before reuse and discard contaminated leather articles. Get medical attention if swelling or reddening occurs.

Ingestion: If appreciable quantities are swallowed, seek medical attention. Do not induce vomiting. Dilute by giving water or milk to drink if victim is conscious.

Section VI. Reactivity Data

Stability: Stable Conditions to avoid: Excessive heat.

Incompatibility (Materials to avoid): Strong oxidizing agents and mineral acids. Uncontrolled curing with amine curing agents in masses greater than 2 inches thick.

Hazardous decomposition products: Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, ammonia, and nitrogen oxides.

Hazardous polymerization: Will not occur.



MATERIAL SAFETY DATA SHEET

Section VII. Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Dike spill. Absorb with inert material and collect for disposal. Flush area with water. Prevent washings from entering waterways.

Waste disposal methods: Incinerate or use biological treatment in accordance with local, state and federal regulations. Dispose of as a hazardous waste according to local, state and federal regulations.

RCRA Hazardous Waste No.: N.A.

CERCLA Reportable Quantity: If this product becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

SARA TITLE III Chemicals: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered under applicable definitions, to meet the following categories: An immediate health hazard. This product contains no ingredients subject to SARA Title III Section 313.

Section VIII. Control Measures

Respiratory Protection: Wear a properly fitted NIOSH/MSHA approved respirator whenever exposure to vapor/mist is likely unless levels are below applicable limits.

Ventilation: Local exhaust is recommended when appropriate to control employee exposure. Mechanical is not recommended as the sole means of controlling employee exposure.

Protective gloves: For operations where contact can occur, wear impervious gloves (neoprene, nitrile).

Eye protection: Chemical splash goggles or safety glasses with side shields.

Other protective equipment: For operations where contact can occur, coveralls, apron and rubber foot covering are recommended. A safety shower and eye wash facility should be available.

Work/hygienic practices: Wash hands with soap and water after use and/or before breaks, lunch and at the end of work

Section IX. Preparation Date of MSDS

The foregoing technical information and recommendations are compiled from sources that are believed to be accurate and reliable. However, they are supplied without warranty or guarantee of any kind either expressed or implied. The purchaser is responsible for selecting and determining the suitability of products for purchaser's particular needs and we disclaim any responsibility for improper applications or misuse of our products in any manner whatsoever.