

# Gapoxio™ Part A

Date Printed: 06 August 1998

## MATERIAL SAFETY DATA SHEET

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Company Information

Martin R. Carbone, Inc.  
1227 De La Vina St.  
Santa Barbara, CA 93101  
Phone: 805-965-5574  
Fax: 805-965-2414

#### MSDS Information:

Preparation Date: 11 July 1998  
Supersedes: 12 March 1998  
Prepared By: Industrial Hygiene  
Phone Number: 651-236-5842

Medical Emergency Phone Number: 1-888-853-1758  
Transport Emergency Phone Number: (CHEMTREC) 1-800-424-9300

### PRODUCT INFORMATION:

Product Name/Number, GAPOXIO/AB-123 Part A  
Product Description (product use): Epoxy Resin

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Unlisted ingredients are not "hazardous" as per the OSHA standard and/or are not found on the WHMIS ingredient disclosure list.

Chemical/CAS Number	Percent	OSHA PEL	ACGIH TLV
Bisphenol A diglycidyl ether (1675-54-3)	10-30%	Not Estab.	Not Estab.

LD50: 11 gm/kg (oral, rat) LC50: No data found.  
See Section 16 for additional information.

### SECTION 3: HAZARDS INFORMATION

#### EMERGENCY OVERVIEW

Potential skin sensitizer  
Possible cancer hazard. Contains a material which may cause cancer.

#### POTENTIAL HEALTH EFFECTS

**Eyes:** Eye contact with liquid product will cause irritation  
**Skin:** Bisphenol A Diglycidyl ether is a potential skin sensitizer  
**Inhalation:** Inhalation is not an anticipated route of exposure  
**Ingestion:** Harmful if swallowed  
**Chronic:** When the product is in its final form and is abraded or disturbed, dusting may occur and crystalline silica may be released into the air. Long-term overexposure to crystalline silica may cause permanent lung damage and reduced pulmonary function.

**REGULATED CARCINOGEN STATUS:** Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH or OSHA listed carcinogens.

Crystalline silica is listed as a potential carcinogen by NTP and IARC.  
Fibrous glass is listed as a possible carcinogen by NTP.

**Existing Health Conditions Affected by Exposure:** No known effects on other illnesses.

## SECTION 4: FIRST AID MEASURES

**If in eye:** Flush immediately with water for 15 minutes. Consult a physician if irritation persists.

**If on skin:** Wash affected area with soap and water. Launder contaminated clothing before reuse.

**If ingested:** If person can swallow, give one glass of water or milk. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

## SECTION 5: FIRE FIGHTING MEASURES

**Flash Point/Method:** 470+ degrees F/TCC

**Upper Explosive Limit/Lower Explosive Limit:** Not applicable

**Autoignition Temperature:** Not applicable

**Appropriate Extinguishers:** Use water spray, foam, dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

**Unusual Fire and Explosion Hazards:** None Known.

**Hazardous Combustion Product:** Incomplete combustion can yield low molecular weight hydrocarbons, carbon monoxide.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear rubber gloves and wipe up with absorbent material. Residue may be removed with a chlorine solvent.

## SECTION 7: HANDLING AND STORAGE

### HANDLING INFORMATION

Avoid skin contact with product at all times.

### STORAGE INFORMATION

Consult the Technical Data Sheet for specific storage instructions.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection:** Safety Glasses

**Skin Protection:** Prevent contact by using rubber gloves and appropriate protective clothing. Launder contaminated clothing before reuse.

**Respiratory Protection:** Not normally required. Use NIOSH/MSHA approved respirator if conditions warrant.

**Ventilation:** General dilution ventilation.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** . . . . .Putty

**Color:** . . . . .Grayish

**Odor:** . . . . .Mild Epoxy

**Odor Threshold:** . . . . .Not Established

**Weight per Gallon:** . . . . .15.5 lbs.

**Specific Gravity:** . . . . .1.86

**% Solids by Weight:** . . . . .Not Established

**pH:** . . . . .N/A

**Boiling Range:** . . . . .Not established

**Freezing/Melting Point:** .Not established

**Vapor Pressure:** . . . . .Not established

**Vapor Density:** . . . . .Not established

**Evaporation Rate:** . . . . .Not established

**Water/Oil Partition Coefficient:** . .Not established

**VOC:** . . . . .Not established

**SECTION 10: STABILITY AND REACTIVITY DATA**

**Stability:** . . . . .Stable  
**Incompatibility:** . . . . .Not established  
**Hazardous Decomposition:** . . .Not established  
**Hazardous Polymerization:** . . .Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

no data available

**SECTION 12: ECOLOGICAL INFORMATION**

no data available

**SECTION 13: DISPOSAL CONSIDERATIONS**

To the best of our knowledge, this product does not meet the definition of hazardous waste under the US EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

**SECTION 14: TRANSPORTATION INFORMATION  
UNITED STATES DEPARTMENT OF TRANSPORTATION (DOT)**

**DOT Proper Shipping Name:** Not regulated.

It is in our opinion that the information provided here may be used to transport this product in compliance with Canadian Transportation of Dangerous Goods.

**SECTION 15: REGULATORY INFORMATION**

**FEDERAL:**

**Toxic Substances Control Act (TCSA)**

**Section 4- Test Rule**

This product contains a chemical substance that is subject to a Section 4 test rule. Contact the company TSCA Compliance Manager at 651-236-5858 for the identity of the Section 4 Chemical(s).

**Section 8(b) - Inventory Status**

This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

**Section 12(b) - Export Notice Requirements**

This product contains a chemical substance that is currently on the EPA's Section 12(b) Export List. Within seven days of entering into a contract to export and certainly no later than the day of export, the agent of export must notify the EPA of their intent.

Contact the company TSCA Compliance Manager at 651-236-5858 for the identity of the Section 12(b) chemical(s).

**SARA TITLE III**

**Section 313:** This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, (SARA) and 40 CFR 372.

**STATE REGULATIONS:**

**California Proposition 65:** This product does contains chemical(s) known to the state of California to cause cancer (c) or reproductive (r) damage.

**0.1-1.0% Crystalline Silica (c) 14808-60-7**

*listed October 1, 1988*

**<0.0001% Epichlorohydrin (c)(r) 106-89-9**

*listed October 1 1987*

**<0.0002% Nickel compounds (c)**

*listed October 1, 1989*

**WHMIS IDENTIFICATION/OTHER INTERNATIONAL REGULATIONS**

D2A, D2B

**HMIS RATING**

**Health-2      Flammability-1      Reactivity-0**

See SECTION 8: EXPOSURE/PERSONAL PROTECTION for personal protective equipment recommendations.

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Fiber Resin Corporation from its suppliers, and because Fiber Resin Corporation has no control over the conditions of handling and use, Fiber Resin Corporation makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Fiber Resin Corporation assumes no responsibility for use or reliance thereon. It is the responsibility of the user of Fiber Resin Corporation products to comply with all applicable federal, state and local laws and regulations.

## SECTION 16: ADDITIONAL INFORMATION

This product contains the following substance(s) identified by OSHA, WHMIS or the ACGIH as hazardous. During normal use, the material will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

### **10-30% Silica-Amorphous (7631-86-9)**

**Exposure limit:** 6 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**LD50:** 3160mg/kg (oral, rat)      **LC50:** No data found

### **30-50% Calcium Carbonate (1317-65-3)**

**Exposure Limit:** total dust 15 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**Exposure Limit respirable dust:** 5 mg/M<sup>3</sup> (OSHA)

**LD50:** No data found      **LC50:** No data found

### **10-30% Kaolin (1332-58-7)**

**Exposure limit total dust:** 10 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**Exposure limit respirable dust:** 5 mg/M<sup>3</sup> (OSHA) 2 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

### **.1-1.0% Silica-crystalline (14808-60-7)**

**Exposure limit respirable dust:** 0.1 mg/M<sup>3</sup> (OSHA) 0.1 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

### **1-5% Fibrous glass (65997-17-3)**

**Exposure limit:** 6 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

### **5-10% Talc-containing no asbestos fibers (14807-96-6)**

**Exposure limit total dust:** 15 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**Exposure limit respirable dust:** 2 mg/M<sup>3</sup> (OSHA) 2 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

Wear a NIOSH/MSHA approved respirator with HEPA filters when sanding, cutting or abrading this product. Local exhaust ventilation required where dusts may be generated.

Fibrous glass (fiber glass) is listed by NTP as reasonably anticipated to cause cancer. This is based on two studies with laboratory animals. The fibrous glass was implanted into the lungs of the animals. No inhalation studies were performed. Human studies have not indicated an increased risk of cancer because of exposure to fibrous glass. Although fibrous glass may present a cancer hazard, the risk is negligible because human exposure to fibrous glass is limited.

# Gapoxio™ Part B

Date Printed: 06 August 1998

## MATERIAL SAFETY DATA SHEET

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Company Information

Martin R. Carbone, Inc.  
1227 De La Vina St.  
Santa Barbara, CA 93101  
Phone: 805-965-5574  
Fax: 805-965-2414

#### MSDS Information:

Preparation Date: 11 July 1998  
Supersedes: 12 March 1998  
Prepared By: Industrial Hygiene  
Phone Number: 651-236-5842

Medical Emergency Phone Number: 1-888-853-1758  
Transport Emergency Phone Number: (CHEMTREC) 1-800-424-9300

### PRODUCT INFORMATION:

Product Name/Number, GAPOXIO/AB-123 Part B  
Product Description (product use): Epoxy Resin curing agent

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Unlisted ingredients are not "hazardous" as per the OSHA standard and/or are not found on the WHMIS ingredient disclosure list.

Chemical/CAS Number	Percent	OSHA PEL	ACGIH TLV
Bisphenol A (80-05-7) <i>LD50</i> : 3250 mg/kg (oral, rat)	1-5%	Not Estab.	Not Estab.
	<i>LC50</i> : 200 ppm. (rat)		
Tetraethylenepentamine (112-57-2) <i>LD50</i> : no data found	5-10%	Not Estab.	Not Estab.
	<i>LC50</i> : no data found		

See Section 16 for additional information.

### SECTION 3: HAZARDS INFORMATION

#### EMERGENCY OVERVIEW

Severe eye irritant  
Skin irritant  
Possible cancer hazard. Contains a material which may cause cancer.

#### POTENTIAL HEALTH EFFECTS

**Eyes:** Severe irritant  
**Skin:** Skin contact will cause irritation  
**Inhalation:** Inhalation is not an anticipated route of exposure  
**Ingestion:** Harmful if swallowed  
**Chronic:** When the product is in its final form and is abraded or disturbed, dusting may occur and crystalline silica may be released into the air. Long-term overexposure to crystalline silica may cause permanent lung damage and reduced pulmonary function.

**REGULATED CARCINOGEN STATUS:** Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH or OSHA listed carcinogens.

Crystalline silica is listed as a potential carcinogen by NTP and IARC.  
Fibrous glass is listed as a possible carcinogen by NTP.

**Existing Health Conditions Affected by Exposure:** No known effects on other illnesses.

## SECTION 4: FIRST AID MEASURES

**If in eye:** Flush immediately with large amounts water for 15 minutes. Call a physician.

**If on skin:** Wash affected area with soap and water. Launder contaminated clothing before reuse.

**If vapors inhaled:** Remove from exposure. Restore breathing if necessary. Keep warm and quiet. Call a physician.

**If ingested:** If person can swallow, give one glass of water or milk. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

## SECTION 5: FIRE FIGHTING MEASURES

**Flash Point/Method:** 400+ degrees F/TCC

**Upper Explosive Limit/Lower Explosive Limit:** Not applicable

**Autoignition Temperature:** Not applicable

**Appropriate Extinguishers:** Use water spray, foam, dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

**Unusual Fire and Explosion Hazards:** None Known.

**Hazardous Combustion Product:** Incomplete combustion can yield low molecular weight hydrocarbons, carbon monoxide, nitrogen compounds.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear rubber gloves and wipe up with absorbent material. Residue may be removed with a chlorinated solvent.

## SECTION 7: HANDLING AND STORAGE

### HANDLING INFORMATION

Avoid skin contact with product at all times.

### STORAGE INFORMATION

Consult the Technical Data Sheet for specific storage instructions.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection:** Safety Glasses

**Skin Protection:** Prevent contact by using rubber gloves and appropriate protective clothing. Launder contaminated clothing before reuse.

**Respiratory Protection:** Not normally required. Use NIOSH/MSHA approved respirator if conditions warrant.

**Ventilation:** General dilution ventilation.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** . . . . .Putty

**Color:** . . . . .Tan

**Odor:** . . . . .Mild Epoxy

**Odor Threshold:** . . . . .Not Established

**Weight per Gallon:** . . . . .15.5 lbs.

**Specific Gravity:** . . . . .1.95

**% Solids by Weight:** . . . . .Not Established

**pH:** . . . . .N/A

**Boiling Range:** . . . . .Not established

**Freezing/Melting Point:** .Not established

**Vapor Pressure:** . . . . .Not established

**Vapor Density:** . . . . .Not established

**Evaporation Rate:** . . . . .Not established

**Water/Oil Partition Coefficient:** . .Not established

**VOC:** . . . . .Not established

**SECTION 10: STABILITY AND REACTIVITY DATA**

**Stability:** .....Stable  
**Incompatibility:** .....Not established  
**Hazardous Decomposition:** ...Nitrogen Compounds  
**Hazardous Polymerization:** ...Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

no data available

**SECTION 12: ECOLOGICAL INFORMATION**

no data available

**SECTION 13: DISPOSAL CONSIDERATIONS**

To the best of our knowledge, this product does not meet the definition of hazardous waste under the US EPA Hazardous Waste Regulations 40 CFR 261. Disposal via incineration at an approved facility is recommended. Consult state, local or provincial authorities for more restrictive requirements.

**SECTION 14: TRANSPORTATION INFORMATION**  
**UNITED STATES DEPARTMENT OF TRANSPORTATION (DOT)**

**DOT Proper Shipping Name:** Not regulated.  
It is in our opinion that the information provided here may be used to transport this product in compliance with Canadian Transportation of Dangerous Goods.

**SECTION 15: REGULATORY INFORMATION**

**FEDERAL:**  
**Toxic Substances Control Act (TCSA)**

**Section 8(b) - Inventory Status**

This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

**SARA TITLE III**

**Section 313:** This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, (SARA) and 40 CFR 372.

Chemical Name	CAS Number	Percent
4,4-Isopropylidenediphenol	80-05-7	1-5%

**STATE REGULATIONS:**

**California Proposition 65:** This product does contains chemical(s) known to the state of California to cause cancer (c) or reproductive (r) damage.

- 0.1-1.0% Crystalline Silica (c)**      **14808-60-7**  
*listed October 1, 1988*
- <0.0002% Nickel compounds (c)**  
*listed October 1, 1989*

**WHMIS IDENTIFICATION/OTHER INTERNATIONAL REGULATIONS**

D2b, e

**HMIS RATING**

**Health-3      Flammability-1      Reactivity-0**

*See SECTION 8: EXPOSURE/PERSONAL PROTECTION for personal protective equipment recommendations.*

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Fiber Resin Corporation from its suppliers, and because Fiber Resin Corporation has no control over the conditions of handling and use, Fiber Resin Corporation makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consid-

eration, and Fiber Resin Corporation assumes no responsibility for use or reliance thereon. It is the responsibility of the user of Fiber Resin Corporation products to comply with all applicable federal, state and local laws and regulations.

## SECTION 16: ADDITIONAL INFORMATION

This product contains the following substance(s) identified by OSHA, WHMIS or the ACGIH as hazardous. During normal use, the material will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

### **10-30% Silica-Amorphous (7631-86-9)**

**Exposure limit:** 6 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**LD50:** 3160mg/kg (oral, rat)      **LC50:** No data found

### **30-50% Calcium Carbonate (1317-65-3)**

Exposure Limit: total dust 15 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

Exposure Limit respirable dust: 5 mg/M<sup>3</sup> (OSHA)

**LD50:** No data found      **LC50:** No data found

### **10-30% Kaolin (1332-58-7)**

**Exposure limit total dust:** 10 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**Exposure limit respirable dust:** 5 mg/M<sup>3</sup> (OSHA) 2 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

### **.1-1.0% Silica-crystalline (14808-60-7)**

**Exposure limit respirable dust:** 0.1 mg/M<sup>3</sup> (OSHA) 0.1 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

### **1-5% Fibrous glass (65997-17-3)**

Exposure limit: 6 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

### **5-10% Talc-containing no asbestos fibers (14807-96-6)**

**Exposure limit total dust:** 15 mg/M<sup>3</sup> (OSHA) 10 mg/M<sup>3</sup> (ACGIH)

**Exposure limit respirable dust:** 2 mg/M<sup>3</sup> (OSHA) 2 mg/M<sup>3</sup> (ACGIH)

**LD50:** No data found      **LC50:** No data found

Wear a NIOSH/MSHA approved respirator with HEPA filters when sanding, cutting or abrading this product. Local exhaust ventilation required where dusts may be generated.

Fibrous glass (fiber glass) is listed by NTP as reasonably anticipated to cause cancer. This is based on two studies with laboratory animals. The fibrous glass was implanted into the lungs of the animals. No inhalation studies were performed. Human studies have not indicated an increased risk of cancer because of exposure to fibrous glass. Although fibrous glass may present a cancer hazard, the risk is negligible because human exposure to fibrous glass is limited.