

# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz  
Revision Date: November 8 2010

### Section 1. Product Identification

Manufacturer:

Polymer Composites, Inc.  
1871 Lake Place  
Ontario, CA 91761  
(909) 673-1007 • Fax: (909) 673-1605

Trade Name: **MAX FRE PART A RESIN**  
Chemical Family: Modified Bisphenol A Epoxy Resin Filled  
Hazard Rating: Health = **3**, Fire = **0**, Reactivity = **0**  
(Rating: **0** = None, **4** = Extreme)

### Section 2. Product Components

Hazardous Component/s	%	OSHA PEL	ACGIH TLV	CAS #
Phenol, 4- (1-methylethylidene) Bis, Polymer with (Chloromethane) Oxerane	70 - 100	•	•	25068-38-6
Calcium Carbonate	20 - 30	Dispersed - will not pose dust hazard		Trade Secret
Glycidic Ether Modified Ammonium Polyphosphate Compound	0-10 0-10	• Dispersed - will not pose dust hazard	•	Proprietary Proprietary

- No established standards at the time of publication

### Section 3. Physical Data

Specific Gravity (Water = 1)	-	1.25 to 1.35
Vapor Pressure (mm Hg)	-	<0.01
Vapor Density	-	Heavier than air
Evaporation Rate	-	Slower than butyl acetate
% VOC	-	0.0
Boiling Point	-	>200°C
Solubility in Water	-	<0.01%
Appearance	-	White or Colored Opaque Liquid
Odor	-	Characteristic ester odor

### Section 4. Fire and Explosion Data

Flash Point	-	>200°F (COC, SETAFLASH Method)
Extinguishing Media	-	Use Carbon Dioxide or dry chemicals
Flammable Limits	-	LEL = NA UEL = NA

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

### Special Fire Fighting Procedures:

Remove all ignition sources. Wear self-contained breathing apparatus and complete protective equipment when confined to areas where potential for exposure to vapors or products of combustion exists.

## Section 5. Reactivity Data

- |                                       |  |
|---------------------------------------|--|
| Stability                             | - Stable   |
| Conditions to Avoid                   | - Prolonged exposure to extreme heat and direct sunlight   |
| Materials to Avoid                    | - Amines, Strong mineral acids, caustic acid, peroxides and other oxidizers  |
| Hazardous Decomposition or By-Product | - Fumes produced when heated to decomposition may include carbon monoxide, carbon dioxides and other oxides of nitrogen. |
| Hazardous Polymerization              | - May occur if mixed with catalyst in large mass if stored at high temperature for prolonged periods.                    |
| Conditions to Avoid                   | - Do not catalyze in large mass or store above 100°F.  |

## Section 6. Hazard Data

### Effects of Overexposure

- |                                 |   |
|---------------------------------|---|
| Indigestion                     | - Do not take internally. May cause gastrointestinal irritation. Slight toxicity. |
| Skin Contact                    | - Low irritation factor but may cause allergic reaction.                          |
| Eye Contact                     | - Low to moderate irritation factor but may cause retinal irritation.             |
| Inhalation                      | - May cause irritation to upper respiratory tract, nausea, and dizziness.         |
| Chronic Effects of Overexposure | - No specific information available.  |

### Emergency First Aid Treatment

- |                 |   |
|-----------------|---|
| Ingestion       | - If appreciable amounts swallowed, seek medical attention.   |
| Skin Contact    | - Wash with warm water and mild soap. Remove and wash contaminated clothing. Seek medical attention if rash develops.           |
| Eye Contact     | - Flush with water for at least 15 minutes. Do not rub eyes. Seek immediate medical attention.                                  |
| Inhalation      | - Remove to fresh air. If breathing has stopped, call 911, administer artificial respiration or compressed oxygen if available. |
| Carcinogenicity | - None Established. (Substance present at a concentration of 0.1% or more classified as a carcinogen by IARC, NTP or OSHA)      |

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

### Section 7. Precautions for Safe Handling and Use

- |   |   |
|---|---|
| Steps to be taken in case material is released or spilled | - Prevent spills from entering waterways. Will not flow             |
| Waste disposal method                                     | - Dispose of material per all Federal, State and Local regulations. |
| Storing   | - Store in original container away from heat and direct sunlight.   |

### Section 8. Control Measures

- |                            |  |
|----------------------------|--|
| Respiratory Protection     | - Not normally needed. Recommended if material is to be heated or atomized via aerosol or other atomizing equipment. OSHA approved organic vapor mask should be worn if no ventilation is present. |
| Protective Gloves          | - Recommended as a general practice: Industrial Grade, impervious glove is suggested when handling this material.  |
| Eye and Face Protection    | - Chemical splash goggles.   |
| Other Protective Equipment | - For operation where personal contact can occur: use chemical face shield, impervious body covering and steel toe boots. A safety shower and eye wash facility should be available.               |

### Section 9. Shipping and Regulatory Classifications

- |                   |  |
|-------------------|--|
| DOT Shipping Name | - Not Applicable   |
| DOT Hazard Class  | - Not Regulated  |
| DOT UN Number     | - Not Applicable   |
| SARA/Title III    | - None   |
| Other Information | - Does not contain any California Prop. 65 designated chemicals. This product does not contain chemicals that deplete the ozone layer. |

### Disclaimer of Liability

The information cited here in is based on information available at the time of publication.

The manufacturer of this product or its direct representatives makes no warranties, express or implied as to its accuracy and assumes no liability arising from its use by others.

Compliance with all applicable Federal, State and Local laws and regulations remains the responsibility of the user.

# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz  
Revision Date: November 8 2010

### SECTION 1: IDENTIFICATION

**Product/Chemical Name** MAX FRE PART B CURING AGENT  
**Recommended Use** Amine Curing Agent  
**Manufacturer Information** Polymer Composites, Inc.  
**– Compounding Only** 1871 Lake Place  
Ontario, CA 91761  
(909) 673-1625 • Fax: (909) 673-1605

### SECTION 2: HAZARD(S) IDENTIFICATION

**Hazard Classification** Corrosive liquid  
**Signal Word** Danger  
**Hazard Statement(s)** May cause an allergic skin reaction, may cause eye irritation.  
**Pictogram(s)**



### GHS Classification

Acute toxicity Oral – Category 4  
Acute toxicity Dermal – Category 1  
Skin corrosion Category 1B  
Skin sensitization Category 1

### GHS Label elements, including precautionary statements

<b>Health Hazards:</b>	H302 + H312 H314 H317	Harmful if swallowed or in contact with skin Causes severe skin burns and eye damage May cause an allergic skin reaction
<b>Prevention Precautions</b>	P261 P264 P270 P272 P280	Avoid breathing dust/fume/gas/mist/vapors/spray Wash hands thoroughly after handling Do not eat, drink, or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace Wear protective gloves/protective clothing/eye protection/face protection
<b>Response Precautions</b>	P301 + P312 P301 + P330 + P331 P303 + P361 + 353  P304 + P340 P305 + 351 + P338  P310 P333 + P313 P363	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Storage</b>	P405	Store locked up
<b>Disposal Precautions</b>	P501	Dispose of contents/container to be specified in accordance with regulations

### Hazards not otherwise classified (HNOC) or not covered by GHS:

Toxic in contact with skin  
Corrosive  
Moderate respiratory irritant  
Severe skin irritant  
Severe eye irritant  
May cause sensitization by skin contact

# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances

Name	Product Identifier (CAS) and Other Unique Identifiers	Concentration
Epoxy Adduct	Proprietary	30-60%
3,3(Oxybis(2, 1 ethane-diloxy))bis 1- propanmine	Proprietary	30%-50%

### SECTION 4: FIRST-AID MEASURES

#### Description of first aid measures

<b>First-aid measures general</b>	Seek medical advice. If breathing has stopped or is labored, give assisted respiration. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
<b>First-aid measures after inhalation</b>	If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If heart has stopped, trained personnel should begin cardiopulmonary resuscitated immediately. Move to fresh air.
<b>First-aid measures after skin contact</b>	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Wash off immediately with plenty of water for at least 20 minutes. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately.
<b>First-aid measures after eye contact</b>	Rinse immediately with plenty of water and also under eyelids for at least 20 minutes. Remove contact lenses.
<b>First-aid after ingestion</b>	Do not induce vomiting without medical advice. Drink 1 to 3 glasses of water or milk. If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.

#### Note to Physician

Application of corticosteroid cream has been effective in treating skin irritation.

#### Most important symptoms and effects, both acute and delayed

Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: sore throat, eye disease, skin disorders and allergies, adverse skin effects (such as rash, irritation, or corrosion), adverse eye effects (conjunctivitis or corneal damage), adverse respiratory effects (such as cough, tightness of chest or shortness of breath), asthma.

**Indication of any immediate medical attention and special treatment needed:** n/a

### STEP 5: FIRE-FIGHTING MEASURES

#### Extinguishing media

<b>Flammable Classification</b>	Non-flammable
<b>Suitable extinguishing media</b>	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Dry sand Limestone powder
<b>Specific Hazards</b>	May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes.
<b>Unsuitable extinguishing media</b>	Water

#### Advice for Firefighters

**Special Protective Actions for Firefighters:** Avoid contact with the skin. A face shield should be worn. Use personal protective equipment.

Wear self-contained breathing apparatus for fire fighting if necessary.

#### Further Information

Do not allow run-off from fire fighting to enter drains or water courses.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves, and eye/face protection. Evacuate personnel to safe areas.

#### Methods and materials for containment and clean up

Approach suspected leak with caution. Place in appropriate chemical waste container.

#### Environmental Precautions

Construct a dike to prevent spreading.

**Additional Advice:** None

# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

If possible, stop flow of product.

### SECTION 7: HANDLING AND STORAGE

#### Precautions for safe handling

Do not use sodium nitrite or other nitrosating agents in formulations containing his product. Suspected cancer-causing nitrosamines could be formed. Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid breathing vapors and/or aerosols. Avoid contact with eyes. Use only in well-ventilated areas. Use personal protective equipment. When using, do not eat, drink, or smoke.

#### Conditions for safe storage, including any incompatibilities

Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store near acids. Keep containers tightly closed in a dry, cool, and well-ventilated place.

#### Technical Measures/Precautions

Do not store in reactive metal containers.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering Measures

Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

#### Personal Protective Measures

##### Respiratory Protection

Wear appropriate respirator when ventilation is inadequate

##### Skin Protection

Impervious clothing  
Full rubber suit (rain gear)  
Rubber or plastic boots  
Long sleeve shirts and trousers without cuffs.

##### Hand Protection

Slicker suit  
Neoprene gloves  
Butyl-rubber  
Nitrile rubber  
Impervious gloves  
Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

##### Eye/Face Protection

Full face shield with goggles underneath. Chemical resistant goggles must be worn.

##### Environmental Exposure Controls

Construct a dike to prevent spreading

##### Special Instructions for Protection and Hygiene

Discard contaminated leather articles. Remove contaminated clothing. Drenching affected area with water for at least 15 minutes. Provide readily accessible eye wash stations and safety showers.

#### Exposure Limit(s)

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Solubility	0.1 g/l
Appearance	Clear	Evaporation Rate	No data available
Density	0.98 g/cm <sup>3</sup> @ 77°F (25°C)	Flash Point	205°F ( 96°C)
Upper/Lower Flammability or Explosive Limits	No data Available or No Data Available	Initial Boiling Point and Boiling Range	401 (205°C)
Odor	Fishy	Flammability (solid, gas)	n/a
Vapor Pressure	< 0.01 mmHg at 70°F (21°C)	Partition Coefficient	n/a
Odor Threshold	No data available	Auto-Ignition Temperature	n/a
Vapor Density	5.61 g/cm <sup>3</sup>	Decomposition Temperature	n/a
pH	9 Alkaline	Viscosity	20 mPa.s at 77°F (25°C)
Melting/Freezing Point	No data available	Relative Density	0.98 (water = 1)

# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

### SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	n/a
<b>Chemical stability</b>	Stable under normal handling and storage conditions.
<b>Possibility of Hazardous Reactions</b>	n/a
<b>Conditions to Avoid</b>	No data available
<b>Incompatible Materials</b>	Sodium hypochlorite Organic acids (acetic acid, citric acid etc.) Mineral acids Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion CAUTION: N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations Nitrous acid and other nitrosating agents
<b>Hazardous Decomposition Products</b>	Oxidizing agents Nitric acid Ammonia Nitrogen oxide (NOx) Nitrogen oxide can react with water vapors to form corrosive nitric acid Carbon monoxide Carbon dioxide (CO <sup>2</sup> ) Nitrosamine
<b>Possibility of Hazardous Reactions/Reactivity</b>	No data available

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Toxicological Information

##### Likely Routes of Exposure

Effects on Eye	Causes eye burns. May cause blindness. Severe eye irritation.
Effects on Skin	Toxic in contact with skin. Causes skin burns.
Inhalation Effects	Can cause severe eye, skin, and respiratory tract burns. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
Ingestion Effects	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Symptoms	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat, eye disease, skin disorders and allergies, adverse skin effects (such as rash, irritation, or corrosion), adverse eye effects (such as conjunctivitis or corneal damage), adverse respiratory effects (such as cough, tightness of chest or shortness of breath), asthma.

##### Acute Toxicity

Acute Oral Toxicity	LD50: 2369 mg/kg Species: Rat
Inhalation	No data available
Acute Dermal Toxicity	LD50: 2,000 mg/kg Species: Rabbit
Skin Corrosion/Irritation	Severe skin irritation
Serious Eye Damage/Eye Irritation	Severe eye irritation
Sensitization	May cause sensitization by skin contact. Sensitization has occurred in laboratory animals after repeated exposures.

##### Chronic Toxicity or Effects From Long Term Exposures

Carcinogenicity	No data available
Reproductive Toxicity	No data available
Germ Cell Mutagenicity	Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity.
Specific Target Organ Systemic Toxicity (single exposure)	No data available
Specific Target Organ Systemic Toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

##### Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma, and eczemas, eye disease, skin disorders and allergies, adverse skin effects (such as rash, irritation, or corrosion), adverse eye effects (such as conjunctivitis or corneal damage), adverse respiratory effects (such as cough, tightness of chest or shortness of breath), asthma.

# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

### SECTION 12: ECOLOGICAL INFORMATION (NON-MANDATORY)

#### Ecotoxicity Effects

Aquatic Toxicity No data available  
Toxicity to Other Organisms No data available

#### Persistence and Degradability

Bioaccumulative Potential n/a  
Mobility in Soil n/a  
Biodegradability n/a

### SECTION 13: DISPOSAL CONSIDERATIONS (NON-MANDATORY)

#### Waste From Residues / Unused Product

Contact supplier if guidance is requirement

#### Contaminated Packaging

Dispose of container and unused contents in accordance with federal, state, and local requirements.

### SECTION 14: TRANSPORT INFORMATION (NON-MANDATORY)

#### DOT

UN Number UN2735  
UN Proper Shipping Name Amines Corrosive, n.o.s  
Class or Division 8  
Packing Group III  
Label(s) 8 (Limited Quantity)  
Marine Pollutant No

#### IATA

UN Number UN2735  
UN Proper Shipping Name Amines Corrosive, n.o.s  
Class or Division 8  
Packing Group III  
Label(s) 8 (Limited Quantity)  
Marine Pollutant No

#### IMDG

UN Number UN2735  
UN Proper Shipping Name Amines Corrosive, n.o.s  
Class or Division 8  
Packing Group III  
Label(s) 8 (Limited Quantity)  
Marine Pollutant No

#### TDG

UN Number UN2735  
UN Proper Shipping Name Amines Corrosive, n.o.s  
Class or Division 8  
Packing Group III  
Label(s) 8 (Limited Quantity)  
Marine Pollutant No

#### Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material.



# POLYMER COMPOSITES, INC.

1871 Lake Pl., Ontario, CA 91761 • (909) 673-1007 • Fax: (909) 673-1605

## MAX FRE A/B Safety Data Sheet

Prepared by Gerald Lapuz

Revision Date: November 8 2010

### SECTION 15: REGULATORY INFORMATION (NON-MANDATORY)

Additional safety, health, environmental regulations

Toxic Substance Control Act (TSCA 12(b) Component(s))

Country	Regulatory List	Notification
USA	TSCA	Included on inventory
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer
Canada	DSL	Included on inventory
Australia	AICS	Included on inventory
Japan	ENCS	Included on inventory
South Korea	ECL	Included on inventory
China	SEPA	Included on inventory
Philippines	PICCS	Included on inventory

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification

Acute Health Hazard Chronic Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

None

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other harm.

### SECTION 16: OTHER INFORMATION

HMIS Rating

Health	2
Flammability	1
Physical Hazard	0

#### Disclaimer:

The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Polymer Composites Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use. This SDS is prepared to comply with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH). Classifications of the chemical in accordance with 29 CFR 1910.1200, signal word, hazard and precautionary statement(s), symbol(s) and other information are based on listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS and EC No 1907/2006 and are considered trade secrets under US Federal Law (29 CFR and 40 CFR), Canadian Law (Health Canada Legislation), and European Union Directives.

END OF DOCUMENT