

## Material Safety Data Sheet

Revision Date: December 10, 2003

### Section 1. Product Identification

Manufacturer:

Polymer Composites, Inc.  
1871 Lake Place  
Ontario, CA 91761  
(909) 673-1007 • Fax: (909) 673-1605Trade Name: **MAX CLR PART A (Fast, Standard, HP Version)**  
Chemical Family: Modified Bisphenol A Epoxy Resin  
Hazard Rating: Health = **1**, 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 Epoxidize Diluent Reactive	90 - 100	•	•	25068-38-6
Epoxidize CresylGlyciderEther Modified	1-5	None Established		Proprietary
Non-Silicone Additive	0-10	•	•	Proprietary
	0.1 – .5	None Established		Proprietary

- No established standards at the time of publication

### Section 3. Physical Data

Specific Gravity (Water = 1)	-	1.10
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	-	Colorless Liquid
Odor	-	Characteristic ester odor

### Section 4. Fire and Explosion Data

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

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### 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)      |

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

- |   |  |
|---|--|
| Steps to be taken in case material is released or spilled | - Prevent spills from entering waterways. Absorb with inert absorbent. |
| 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 regulation

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### Section 1. Product Identification

Manufacturer:

Polymer Composites, Inc.  
1871 Lake Place  
Ontario, CA 91761  
(909) 673-1007 • Fax: (909) 673-1605Trade Name: **MAX CLR B (Fast, Standard, HP Version)**  
Chemical Family: Amine Modified Curing Agent  
Hazard Rating: Health = **3**, Fire = **1**, Reactivity = **0**  
(Rating: **0** = None, **4** = Extreme)

### Section 2. Product Components

Hazardous Component/s	%	OSHA PEL	ACGIH TLV	CAS #
Benzyl Alcohol	5-15	•	•	100-51-6
Isophoronediamine adduct	15 - 35	•	•	Trade Secret
Aliphatic amine adduct	50-60	•	•	Trade Secret

- No established standards at the time of publication

### Section 3. Physical Data

Vapor Pressure (mm Hg)	-	< 10.338 @ 21°C (70°F)
Density	-	No Data
pH	-	9
Specific Gravity	-	1.03
Boiling Point	-	205°C (401°F)
Solubility in Water	-	< 1.00 %
Appearance	-	Colorless
Odor	-	Characteristic Amine Odor, Slight Ammonia-like

### Section 4. Fire and Explosion Data

Flash Point	-	93.33°C (199.99°F) CC
Extinguishing Media	-	Ignition will give rise to a Class B fire. In case of large fire use: water spray, alcohol foam. In case of small fire use: carbon dioxide (CO <sub>2</sub> ), dry chemical, dry sand or limestone.
Flammable Limits	-	UEL – No Data; LEL – No Data
Fire Hazard Classification	-	Class IIIB (OSHA/NFPA)

#### 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. Retain expended liquids from fire fighting for later disposal.

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### Unusual Fire And Explosion Hazards

May generate toxic or irritating combustion products. Contact of liquid with skin must be prevented. Sudden reaction and fire may result if product is mixed with an oxidizing agent. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas. Personnel in the vicinity and downwind should be evacuated.

### Section 5. Reactivity Data

Stability	- Stable
Conditions to Avoid	- Do not mix with epoxy in large mass.
Materials to Avoid	- Mineral acids. Organic acids. Oxidizing Agents. Reactive Metals. Sodium or Calcium Hypochlorite.
Hazardous Decomposition or By-Product	- Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV = 2ppm). Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides and Nitric acid in a fire. Ammonia when heated. Irritating and toxic fumes at elevated temperatures. Aldehydes. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.
Hazardous Polymerization	- Will not occur.

### Section 6. Hazard Data

**Routes Of Exposure** – Eye Contact, Skin Contact, Ingestion, Inhalation, Skin Absorption

**Exposure Standards** – No standards established for the product. Maintain air contaminant concentrations in the workplace at the lowest feasible level.

**Health Hazards** – Corrosive to eyes. Corrosive to respiratory system. Corrosive to skin. Severe eye irritant. Severe skin irritant. May cause skin sensitization.

**Target Organs** – Eye, Skin, Respiratory system.

#### Sign and Symptoms of Overexposure

##### Acute Effects

Product vapor in low concentrations can cause lacrimation, conjunctivitis, and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of 'blue haze' or 'fog' around lights. The effect is transient and has no known residual effect. Burns of the eye may cause blindness. Contact with the skin may cause dryness (defatting), itching and/or rash. Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury.

Inhalation of vapors, mists and aerosols may severely damage contacted tissue and produces scarring.

Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well-ventilated space is minimal.

However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided.

Product is absorbed through the skin and may cause nausea, headache, and general discomfort.

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### Possible Longer Term Effects

Repeated and/or prolonged exposure may cause allergenic reaction/sensitization.

Repeated and/or prolonged exposures may result in adverse effects in the respiratory system (cough, tightness of chest or shortness of breath), in the eyes (conjunctivitis or corneal damage), in the skin (defatting, rash or irritation).

Effects of inhalation of vapors may be delayed. Dryness of nasal passages may be experienced when material is inhaled over a long period of time. Repeated and/or prolonged exposure to low concentrations of vapor may cause sore throat which is transient.

### Medical Conditions Generally Aggravated By Exposure

Asthma, Chronic respiratory disease (e.g. Bronchitis, Emphysema), Eye disease, Skin disorders and Allergies.

### Emergency First Aid Treatment

- Ingestion - This material is corrosive; seek medical attention. Administer 3 – 4 glasses of milk or water. Do not give anything by mouth to an unconscious person
- Skin Contact - Immediately flush affected area with water for at least 15 minutes. Remove contaminated clothing and footwear. Cover the affected area with a sterile dressing or clean sheeting and transport for medical care. DO NOT APPLY GREASES OR OINTMENTS. Control shock if present. Seek medical attention.
- Eye Contact - Hold eyelids apart and immediately 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 - (OSHA, ACGIH, NTP, OTHER) – **This product contains NO carcinogens in concentrations of 1% or greater.**

## Section 7. Precautions for Safe Handling and Use

- Steps to be taken in case material is released or spilled - Prevent spills from entering waterways. Absorb with inert absorbent.
- Waste disposal method - Dispose of material per all Federal, State and Local regulations.
- Storing - Store in original container away from heat and direct sunlight. Water contamination should be avoided. If stored above 100°F, a nitrogen atmosphere is recommended.

## Section 8. Control Measures

- Respiratory Protection - NIOSH approved cartridge. 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.

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### Section 9. Shipping and Regulatory Classifications

DOT Non-Bulk Shipping Name	-	Isophoronediamine solution; 8; UN 2289; PG III
IMO Shipping Data	-	Refer to Bill Of Lading
ICAO/IATA shipping Data	-	Isophoronediamine solution; 8; UN 2289; III; Shipment per 49 CFR 171.11
EPA SARA/Title III	-	Section 312 (40CFR370) hazard class Immediate Health Hazard. Delayed Health Hazard.
Other Information	-	Does not contain any California Prop. 65 designated chemicals. This product does not contain chemicals that deplete the ozone layer (ODC). All components are listed in the TSCA chemical substance inventory.

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