

PRODUCT NAME: **PM-200 PART B HARDENER**

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## MATERIAL SAFETY DATA SHEET

MILAMAR COATINGS, INC. 7500 MELROSE LANE OKLAHOMA CITY, OK 73127

### 24 HOUR EMERGENCY ASSISTANCE

CHEM•TEL: 1-800-255-3924

### GENERAL ASSISTANCE

TELE-TECH: 405-755-8448

HEALTH: 3

### HAZARD RATING

FIRE: 3

LEAST = 0 SLIGHT = 1 MODERATE = 2

REACTIVITY: 1

HIGH = 3 EXTREME = 4

## SECTION I

PRODUCT: **PM-200 PART B HARDENER**

CHEMICAL NAME: MIXTURE

CHEMICAL FAMILY: AMINE

PRODUCT DESCRIPTION: EPOXY CURING AGENT

## SECTION II-A

### PRODUCT / INGREDIENT

<u>NO.</u>	<u>COMPOSITION</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>
1	POLYOXYPROPYLENEDIAMINE	9046100	40-60%
2	NONYLPHENOL	25154-52-3	30-50%
3	XYLENE	1330-20-7	0-5%
4	1-METHOXY-2-PROPANOL	000107-98-2	0-10%
5	N-BUTANOL	71-36-3	0-5%

## SECTION II-B

### ACUTE TOXICITY DATA

<u>NO.</u>	<u>ACUTE ORAL LD50</u>	<u>ACUTE DERMAL LD50</u>	<u>ACUTE INHALATION LC50</u>
1	2.885 g/kg (rat)	2.980 g/kg (rabbit)	0/6 deaths (rabbit); 7 hrs
2	1.600 g/kg (rat)	>200 mg/kg (rabbit)	Not available
3	>5g/kg (rat)	>3.16 g/kg (rabbit)	Not available
4	6.6 mL/kg (rat)	12 mL/kg (rabbit)	Not available
5	Not available	Not available	Not available

## SECTION III

### HEALTH INFORMATION

THE HEATH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910-1200).

**EYE CONTACT:** MAY CAUSE SEVERE IRRITATION WITH CORNEAL INJURY WHICH MAY RESULT IN PERMANENT IMPAIRMENT OF VISION, EVEN BLINDNESS.

**SKIN CONTACT:** MAY CAUSE SEVERE IRRITATION WITH PAIN, CHEMICAL BURNS, BLISTER FORMATION, AND POSSIBLE TISSUE DESTRUCTION.

**INHALATION:** MAY CAUSE RESPIRATORY SENSITIZATION IN SUSCEPTIBLE INDIVIDUALS. SEVERE OVEREXPOSURE MAY RESULT IN DIFFICULTY BREATHING, HEADACHE, NAUSEA, VOMITING, DROWSINESS, ANESTHESIA, NARCOSIS, UNCONSCIOUSNESS, AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DEATH.

**INGESTION:** CAUSES BURNING OF MOUTH, THROAT, AND STOMACH WITH ABDOMINAL AND CHEST PAIN, NAUSEA, VOMITING, DIARRHEA, THIRST, WEAKNESS, AND COLLAPSE. ASPIRATION MAY OCCUR DURING SWALLOWING OR VOMITING, RESULTING IN LUNG DAMAGE.

**AGGRAVATED MEDICAL CONDITIONS:** SKIN CONTACT MAY AGGRAVATE AN EXISTING DERMATITIS (SKIN CONDITION). OVEREXPOSURE TO VAPOR, DUST, OR MIST MAY AGGRAVATE EXISTING RESPIRATORY CONDITIONS, SUCH AS ASTHMA, BRONCHITIS, AND INFLAMMATORY OR FIBROTIC RESPIRATORY DISEASE.

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**OTHER HEALTH EFFECTS:** THIS PRODUCT CONTAINS ONE OR MORE AMINES WHICH MAY PRODUCE TEMPORARY AND REVERSIBLE HAZY OR BLURRED VISION. SYMPTOMS DISAPPEAR WHEN EXPOSURE IS TERMINATED. MAY CAUSE LIVER INJURY BASED ON ANIMAL STUDIES.

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## SECTION IV OCCUPATIONAL EXPOSURE LIMITS

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No.	OSHA		ACGIH		OTHER
	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
1	None established				
2	None established				
3	100 ppm		100 ppm	150 ppm	
4	100 ppm		100 ppm	100 ppm	
5	50 ppm	50 ppm	50 ppm		50 ppm

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## SECTION V EMERGENCY AND FIRST AID PROCEDURES

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**EYE CONTACT:** REMOVE CONTACT LENSES AT ONCE. IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE FOR AT LEAST 30 MINUTES. HOLD EYELIDS APART WHILE FLUSHING TO RINSE ENTIRE SURFACE OF EYE AND LIDS WITH WATER. **PROMPT MEDICAL ATTENTION IS ESSENTIAL.**

**SKIN CONTACT:** IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN IF IRRITATION PERSISTS. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

**INHALATION:** REMOVE TO FRESH AIR IF EFFECTS OCCUR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. **GET IMMEDIATE MEDICAL ATTENTION.**

**INGESTION:** **DO NOT INDUCE VOMITING.** IF PATIENT IS CONSCIOUS AND CAN SWALLOW, GIVE TWO GLASSES OF WATER (16 oz). **GET IMMEDIATE MEDICAL ATTENTION.** NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

**NOTE TO PHYSICIAN:** MAY CAUSE TISSUE DESTRUCTION LEADING TO STRICTURE. IF LAVAGE IS PERFORMED, SUGGEST ENDOTRACHEAL AND/OR ESOPHAGOSCOPIC CONTROL. IF BURN IS PRESENT, TREAT AS ANY THERMAL BURN, AFTER DECONTAMINATION. N-BUTANOL IS ESPECIALLY TOXIC IF ASPIRATED. THE VAPORS APPEAR TO CAUSE A SPECIAL VACUOLAR KERATOPATHY IN HUMANS. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

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## SECTION VI SUPPLEMENTAL HEALTH INFORMATION

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**CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION.**

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## SECTION VII PHYSICAL DATA

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BOILING POINT (°F):	244 (n-butanol)	SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	0.943
VAPOR PRESSURE (mm Hg @ 20°C):		Not established	
SOLUBILITY (IN WATER):	Partially soluble	VAPOR DENSITY (AIR = 1):	> 1
EVAPORATION RATE (N-BUTYL ACETATE = 1):		Not established	
APPEARANCE AND ODOR:		Clear colorless liquid with ammonia-like odor.	

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## SECTION VIII FIRE AND EXPLOSION HAZARDS

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FLASH POINT AND METHOD: 84 °F TCC (Xylene)  
FLAMMABLE LIMITS /% VOLUME IN AIR: NOT ESTABLISHED

**EXTINGUISHING MEDIA:** USE WATER SPRAY, DRY CHEMICAL, FOAM, OR CARBON DIOXIDE. WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO COOL FIRE-EXPOSED CONTAINERS. IF A LEAK OR SPILL HAS

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**SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:** USE A POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.

SECTION IX

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

**HAZARDOUS DECOMPOSITION PRODUCTS:** TOXIC LEVELS OF AMMONIA, COMBUSTION PRODUCTS OF NITROGEN, CARBON MONOXIDE, CARBON DIOXIDE, IRRITATING ALDEHYDES, AND KETONES MAY BE FORMED ON BURNING IN A LIMITED AIR SUPPLY.

**SECTION X**

**EMPLOYEE PROTECTION**

**PROTECTIVE CLOTHING:** PROTECTIVE CLOTHING SUCH AS UNIFORMS, COVERALLS, OR LAB COATS MUST BE WORN. LAUNDER OR DRY-CLEAN WHEN SOILED. GLOVES AND GOGGLES RESISTANT TO CHEMICALS AND PETROLEUM DISTILLATES REQUIRED. WHEN HANDLING LARGE QUANTITIES, IMPERVIOUS SUITS, GLOVES, AND RUBBER BOOTS MUST BE WORN.

SECTION XI

ENVIRONMENTAL PROTECTION

<p>USE</p>	<p><b>SPILL OR LEAK PROCEDURES:</b> VENTILATE THE AREA. AVOID BREATHING VAPOR. USE SELF-CONTAINED BREATHING APPARATUS OR SUPPLIED AIR FOR LARGE SPILLS OR CONFINED AREAS. CONTAIN SPILL IF POSSIBLE. WIPE UP OR ABSORB ON SUITABLE MATERIAL AND PICK UP WITH SHOVELS. DO NOT SAWDUST, WOOD CHIPS, OR OTHER CELLULOSIC MATERIALS TO ABSORB THE SPILL. PREVENT ENTRY INTO SEWERS AND WATERWAYS. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.</p>
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## SECTION XII SPECIAL PRECAUTIONS

GROUND ALL TRANSFER EQUIPMENT. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE. HANDLE AS AN INDUSTRIAL CHEMICAL. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. PRACTICE GOOD CAUTION AND PERSONAL CLEANLINESS TO AVOID SKIN AND EYE CONTACT. HOLD BULK STORAGE UNDER NITROGEN BLANKET. STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. COPPER AND ALLOYS OF COPPER SHOULD NOT BE USED AS THEY ARE QUICKLY CORRODED BY THE PRODUCT.

## SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

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HAZARD CLASS:	3(8) -- FLAMMABLE LIQUID
PACKING GROUP:	III
IDENTIFICATION NUMBER:	UN 2924
LABEL REQUIRED:	FLAMMABLE, CORROSIVE
D.O.T. PROPER SHIPPING NAME:	FLAMMABLE LIQUID, N.O.S., 3(8), (POLYOXYPROPYLENEDIAMINE, XYLENE, AND NONYLPHENOL) MARINE POLLUTANT, PG III, UN 2924

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## SECTION XIV

## OTHER REGULATORY CONTROLS

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NOT MEANT TO BE ALL-INCLUSIVE. SELECTED REGULATIONS PRESENTED.

A.	SARA TITLE III SECTION 311/312:	IMMEDIATE HEALTH, DELAYED HEALTH, FIRE HAZARDS
B.	WHMIS CLASSIFICATION:	CLASS B2, D2, D2B, E
C.	TSCA STATUS:	LISTED ON TSCA INVENTORY
D.	OSHA HAZARD COMM. STD.:	HAZARDOUS CHEMICAL

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## SECTION XV

## STATE REGULATORY INFORMATION

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N-BUTANOL: MA, PA

NONYLPHENOL: CA, FL, MA, PA

CA = CALIFORNIA HAZ. SUBST. LIST; CA65 = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT LIST; CT = CONNECTICUT TOX. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

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## SECTION XVI

## SPECIAL NOTES

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UPDATED MSDS.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, MILAMAR COATINGS, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. MILAMAR COATINGS, INC. ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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