

PRODUCT NAME: **PM-100 CLEAR EPOXY RESIN, PART A**

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## MATERIAL SAFETY DATA SHEET

### 24 HOUR EMERGENCY ASSISTANCE

CHEM•TEL: 1-800-255-3924

### GENERAL ASSISTANCE

TELE-TECH: 405-755-8448

**HEALTH:** 2

### HAZARD RATING

**FIRE:** 2 LEAST = 0 SLIGHT = 1 MODERATE = 2

**REACTIVITY:** 1 HIGH = 3 EXTREME = 4

### SECTION I

**PRODUCT:** PM-100 CLEAR EPOXY RESIN, PART A

**CHEMICAL NAME:** MIXTURE

**CHEMICAL FAMILY:** EPOXY

**PRODUCT DESCRIPTION:** EPOXY RESIN

### SECTION II-A

### PRODUCT / INGREDIENT

<u>NO.</u>	<u>COMPOSITION</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>
1	REACTION PRODUCTS OF EPICHLOROHYDRIN AND BISPHENOL A	025085-99-8	80-100%
2	GLYCIDYL NEODECONATE	26761-45-5	1-10%
3	NONYLPHENOL	25154-52-3	1-5%
4	ISOPROPANOL	67-63-0	1-5%
5	NAPHTHA-LIGHT AROMATIC	64742-95-6	1-5%

### 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	> 5.0 g/kg	20.0 g/kg (rabbit)	Not available
2	9.6 g/kg (rat)	38.0 g/kg (rat)	Not available
3	1.6 g/kg (rat)	>2.0 g/kg (rabbit)	Not available
4	4.7 g/kg (rat)	12.7 g/kg (rabbit)	19.0 g/kg (rat)
5	4.2 g/kg (rat)	Not available	Not available

### SECTION III

### HEALTH INFORMATION

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

**EYE CONTACT:** IRRITATING AND WILL INJURE EYE TISSUE IF NOT REMOVED PROMPTLY.

**SKIN CONTACT:** MAY CAUSE SEVERE IRRITATION. HAS BEEN KNOWN TO CAUSE ALLERGIC SKIN REACTION IN HUMANS.

**INHALATION:** HIGH VAPOR CONCENTRATIONS ARE IRRITATING TO THE EYES AND RESPIRATORY TRACT, MAY CAUSE HEADACHES AND DIZZINESS, ARE ANESTHETIC, AND MAY HAVE OTHER CENTRAL NERVOUS SYSTEM EFFECTS.

**INGESTION:** NONYLPHENOL (COMPOUND 3) IS ACUTELY TOXIC.

**SIGNS AND SYMPTOMS:** IRRITATION AS NOTED ABOVE. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

**AGGRAVATED MEDICAL CONDITIONS:** PREEXISTING SKIN AND EYE DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. PREEXISTING SKIN AND LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

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**OTHER HEALTH EFFECTS:** BASED ON ANIMAL STUDIES, REPEATED EXPOSURE TO COMPONENTS OF THIS PRODUCT MAY CAUSE DAMAGE TO LIVER, KIDNEY, AND RESPIRATORY SYSTEMS. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL EXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING VAPORS MAY BE HARMFUL OR FATAL.

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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	None established				
4	400 ppm		400 ppm	500 ppm	
5	400 ppm		50 ppm (recommended by supplier)		

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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. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

**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:** 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.**

INGESTION OF LARGE QUANTITIES (1% OF DIET) OF COMPONENT 2 PRODUCED BODY WEIGHT CHANGES IN EXPERIMENTAL ANIMALS AND IN THE LIVER AND KIDNEY. LEVELS OF 0.5% AND 1.0% WT IN THE DIET ALSO CAUSED BLOOD CHANGES AND REDUCED ERYTHROCYTE COUNT AND HEMATOCRIT.

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SECTION VII		PHYSICAL DATA		
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BOILING POINT (°F):	(alcohol) 180	SPECIFIC GRAVITY (H <sub>2</sub> O = 1):	1.125
VAPOR PRESSURE (mm Hg @ 20°C):		Not established	
SOLUBILITY (IN WATER):		Partially soluble	
VAPOR DENSITY (AIR = 1):		> 1	
EVAPORATION RATE (N-BUTYL ACETATE = 1):		(alcohol) 2.3	
APPEARANCE AND ODOR:		Clear, water white, viscous liquid with mild alcohol odor.	

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**SECTION VIII****FIRE AND EXPLOSION HAZARDS**

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FLASH POINT AND METHOD: 136 °F TCC

FLAMMABLE LIMITS /% VOLUME IN AIR: LEL = 2.0 UEL = 12.7 @ 77 °F

EXTINGUISHING MEDIA: USE ALCOHOL TYPE FOAM, DRY CHEMICAL, OR CO<sub>2</sub>.

**SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:** USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL. IF A LEAK OR SPILL HAS NOT IGNITED, USE WATER SPRAY TO DISPERSE THE VAPORS. CONTAIN THE RUNOFF STREAM. TRY TO COVER LIQUID SPILLS WITH FOAM. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES, AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** NONE KNOWN.

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**SECTION IX****REACTIVITY**

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**STABILITY:** EXCESS HEATING OVER LONG PERIODS OF TIME DEGRADES THE RESIN.

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR BY ITSELF, BUT MASSES OF MORE THAN 1 POUND OF PRODUCT PLUS AN ALIPHATIC AMINE WILL CAUSE IRREVERSIBLE POLYMERIZATION WITH CONSIDERABLE HEAT BUILDUP.

**CONDITIONS AND MATERIALS TO AVOID:** AVOID EXPOSURE TO HEAT, LIGHT, FLAME, OR OTHER SOURCES OF IGNITION. CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS, STRONG LEWIS OR MINERAL ACIDS, AND STRONG MINERAL AND ORGANIC BASES/ESPECIALLY PRIMARY AND SECONDARY AMINES. REACTION WITH SOME CURING AGENTS MAY PRODUCE CONSIDERABLE HEAT.

**HAZARDOUS DECOMPOSITION PRODUCTS:** HAZARDOUS COMBUSTION PRODUCTS MAY INCLUDE INTENSE HEAT, DENSE BLACK SMOKE, CARBON MONOXIDE, CARBON DIOXIDE, ALDEHYDES, ACIDS, PHENOLICS, WATER, AND HYDROCARBON FRAGMENTS.

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**SECTION X****EMPLOYEE PROTECTION**

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**RESPIRATORY PROTECTION:** PROVIDE ADEQUATE VENTILATION. AVOID BREATHING OF VAPORS OR MISTS. AIRBORNE CONCENTRATIONS SHOULD BE KEPT TO LOWEST LEVELS POSSIBLE. WHEN EXPOSURES ARE NOT ADEQUATELY CONTROLLED, USE AN APPROVED RESPIRATOR. SELECTION OF AIR-PURIFYING OR POSITIVE-PRESSURE SUPPLIED AIR WILL DEPEND ON THE SPECIFIC OPERATION AND THE POTENTIAL AIRBORNE CONCENTRATION OF THE MATERIAL. FOR EMERGENCY CONDITIONS, USE AN APPROVED POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS.

**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.

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**SECTION XI****ENVIRONMENTAL PROTECTION**

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**SPILL OR LEAK PROCEDURES:** 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 USE 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.

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**SECTION XII****SPECIAL PRECAUTIONS**

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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.

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**SECTION XIII****TRANSPORTATION REQUIREMENTS**

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DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

HAZARD CLASS: 3 -- COMBUSTIBLE LIQUID

PACKING GROUP: III

IDENTIFICATION NUMBER: NA 1993

LABEL REQUIRED: NONE

D.O.T. PROPER SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (ISOPROPANOL AND NONYLPHENOL), 3, PG III, MARINE POLLUTANT, NA 1993

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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 HAZARDS:	IMMEDIATE HEALTH, DELAYED HEALTH, FIRE
B.	WHMIS CLASSIFICATION:	CLASSES D2, D2B
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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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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