**CRYSTALLINE SILICA** 

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4 5 6

# **MATERIAL SAFETY DATA SHEET**

24 HOUR EMERGENCY ASSISTANCE GENERAL ASSISTANCE			ERAL ASSISTANCE			
CHEM	1•TEL: 1-800	-255-3924		TELE-TECH: 405-755-8448		
HEAL	TH:	2	HA	zard Rating		
FIRE:	:	2	LEAST = 0	SLIGHT = $1$	MODERATE = 2	
REAC	CTIVITY:	1	HIGH = 3	EXTREME = 4	1	
SECT	SECTION I					
<b>PRODUCT:</b>		PM-300 EPOXY COATING, PART A				
Снем	IICAL NAME:		MIXTURE			
CHEMICAL FAMILY:		Y:	Epoxy			
PRODUCT DESCRIPTION:		TION:	EPOXY RESIN			
SECTION II-A PRODUCT / INGREDIENT						
No.	<u>Compositio</u>	N		CAS NUMBER	Percent	
1	REACTION PI	RODUCTS OF E	EPICHLOROHYDRIN			
	AND BISPHEN	IOL A		25085-99-8	30-60%	
2	HYDROUS M.	AGNESIUM SII	LICATE	14807-96-6	10-30%	

14808-60-7

10-30%

4 5 6 7 8 9	1-METHOXY-2-PROPANG AROMATIC HYDROCARE BISPHENOL A/EPICHLOF MULTIFUNCTIONAL ACF GLYCIDYL NEODECONA NAPHTHA-LIGHT AROM	SON COHYDRIN EPOXY RESIN RYLATE MONOMER TE ATIC	000107-98-2 64742-95-6 25068-38-6 13048-33-4 26761-45-5 64742-95-6	0-10% 0-5% 0-5% 0-5% 0-5%	
10 SEC1	ACRYLATE COPOLYMER	Acute Tox	26376-86-3	0-5%	
<u>No.</u> 1 2 3	<u>Acute Oral LD50</u> > 5.0 g/kg Not available Not available	<u>Acute Dermal LD50</u> 20.0 g/kg (rabbit) Not available Not available			

> 5.0 g/kg	20.0  g/kg (10000)	No ucatils ill sat u all, o ill
Not available	Not available	Not available
Not available	Not available	Not available
6.6 mL/kg (rat)	12 mL/kg (rabbit)	Not available
Not available	Not available	Not available
11.4 g/kg (rat)	> 20 mL/kg (rabbit)	No deaths in sat'd air, 8 hr
5 g/kg (rat)	3.7 g/kg	Not available
9.6 g/kg (rat)	38.0 g/kg (rat)	Not available
4.2 g/kg (rat)	Not available	Not available
8.3 g/mg (rat)	> 7.9 g/kg (rabbit)	> 9.85 mg/L, 6 hr exposure

## **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:** 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. PROLONGED CONTACT MAY CAUSE BLISTERS.

**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, INCLUDING DEATH

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**INGESTION:** MAY BE MODERATELY TOXIC IF SWALLOWED.

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.

**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.

<b>SEC</b>	TION IV	OC	CUPATIONAL EX	<b>KPOSURE LIMITS</b>	
	OSH	A	ACGIH	OTHER	
No.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
1	None establish	ned			
2	None establish				
3	$0.1 \text{ mg/m}^3$ (respirable dust)		$0.1 \text{ mg/m}^3$ (res	spirable dust)	
4	100 ppm		100 ppm100 ppm		
5	50 ppm (recommended by supplier)		50 ppm (recon	nmended by supplier)	
6	None establish	ned			
7	None establish	ned			
8	None establish	ned			
9	400 ppm		50 ppm (recon	nmended by supplier)	
10	None establish	ned		· /	

#### **SECTION V**

**EMERGENCY AND FIRST AID PROCEDURES** 

EYE CONTACT:REMOVE CONTACT LENSES AT ONCE. IMMEDIATELY FLUSH EYES WITH LARGE<br/>AMOUNTS OF WATER OR NORMAL SALINE FOR AT LEAST 30 MINUTES. HOLD EYELIDS APART WHILE<br/>FLUSHING TO RINSE ENTIRE SURFACE OF EYE AND LIDS WITH WATER. PROMPT MEDICAL<br/>ATTENTION IS ESSENTIAL.SKIN CONTACT:IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE<br/>REMOVING CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN IF IRRITATION PERSISTS. WASH<br/>CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE<br/>DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.INHALATION:REMOVE VICTIM TO FRESH AIR IF EFFECTS OCCUR. IF NOT BREATHING, GIVE ARTIFICIAL<br/>RESPIRATION.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:** IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS SUCH AS NEAT EPOXY RESINS. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

#### **SECTION VI**

#### SUPPLEMENTAL HEALTH INFORMATION

**CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION.** HEALTH STUDIES HAVE SHOWN THAT MANY PETROLEUM HYDROCARBONS POSE POTENTIAL HUMAN HEALTH RISKS WHICH VARY FROM PERSON TO PERSON. AS A PRECAUTION, EXPOSURE TO LIQUIDS, VAPORS, MISTS, OR FUMES SHOULD BE MINIMIZED.

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Ingestion of large quantities (1% of diet) of component 8 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.

SECTION VII	PHYSICAL DATA
BOILING POINT (°F): $> 200$	SPECIFIC GRAVITY ( $H_2O = 1$ ): 1.483
VAPOR PRESSURE (mm Hg @ 20°C):	Not established
SOLUBILITY (IN WATER):	Slightly soluble
VAPOR DENSITY (AIR = 1):	>1
EVAPORATION RATE (N-BUTYL ACETATE = 1)	): (aromatic hydrocarbon) 0.2
APPEARANCE AND ODOR:	Pigmented, opaque, viscous liquid with strong solvent odor.

SECTION VIII	FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: $125^{\circ}F$ FLAMMABLE LIMITS /% VOLUME IN AIR:LEL = 1.9UEL = 12.6@ 77 °FEXTINGUISHING MEDIA:USE ALCOHOL TYPE FOAM, DRY CHEMICAL, OR CO2.SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:USE WATER SPRAY TO COOL FIREEXPOSEDSURFACES AND TO PROTECT PERSONNEL.IF A LEAK OR SPILL HAS NOT IGNITED, USE WATERSPRAY TODISPERSE 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. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE WHERE THEY MAY LINGER AND/OR FIND AN IGNITION SOURCE AND FLASH BACK. UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE KNOWN.

## SECTION IX

#### REACTIVITY

**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, CARBON MONOXIDE, CARBON DIOXIDE, ALDEHYDES, ACIDS, PHENOLICS, WATER, AND HYDROCARBON FRAGMENTS.

# SECTION X EMPLOYEE PROTECTION

**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.

**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 ABSORD 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.

## **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.

SECTION XIII	TRANSPORTATION REQUIREMENTS		
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., (1-METHOXY-2-PROPANOL)		
	3, PG III, NA 1993		
SECTION XIV OTHER REGULATORY CONTROLS			
NOT MEANT TO BE ALL-INCLUSIVE.	SELECTED REGULATIONS PRESENTED.		
A. SARA TITLE III SECTION 311/312	2 HAZARDS: IMMEDIATE HEALTH, DELAYED HEALTH, FIRE		
B. WHMIS CLASSIFICATION:	CLASSES B2, D2B		
C. TSCA STATUS:	LISTED ON TSCA INVENTORY		
D. OSHA HAZARD COMM. STD.:	HAZARDOUS CHEMICAL		
SECTION XV STATE REGULATORY INFORMATION			

NONE KNOWN.

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.

## **SECTION XVI**

#### SPECIAL NOTES

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.

DATE UPDATED: OCTOBER 5, 2011

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