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MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY ASSISTANCEGENERAL ASSISTANCECHEM TEL: 1-800-255-3924TELE-TECH: 405-495-8848

HEALTH: 2 HAZARD RATING

Fire: 1 Least = 0 Slight = 1 Moderate = 2

REACTIVITY: $\mathbf{0}$ HIGH = 3 EXTREME = 4

SECTION I

PRODUCT: 400 WB EPOXY RESIN, CLEAR PART A

CHEMICAL NAME: MIXTURE
CHEMICAL FAMILY: EPOXY

PRODUCT DESCRIPTION: EPOXY RESIN

SECTION II-A PRODUCT / INGREDIENT

No.	COMPOSITION	CAS NUMBER	PERCENT		
1	REACTION PRDUCTS OF EPICHLOROHYDRIN				
	AND BISPHENOL A	25085-99-8	60-70%		
2	ISOPROPANOL	67-63-0	1-10%		
3	GLYCIDYL NEODECONATE	26761-45-5	20-30%		

SECTION II-B ACUTE TOXICITY DATA

<u>No.</u>	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
1	>5.0 G/KG	20.0 g/kg (rabbit)	NO DEATHS IN SAT'D AIR, 8 HR
2	4.7 g/kg (rat)	12.7 g/kg (rabbit)	19.0 g/kg (rat)
3	9.6 G/KG (RAT)	38.0 g/kg (rat)	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: 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.

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.

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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.

SECTION IV			OCCUPATIONAL EXPOSURE LIMITS		
OSHA		ACG	ACGIH		
No.	PEL/TWA NONE ESTABLISHED	PEL/CEILING	TLV/TWA	TLV/STEL	
2 3	400 PPM NONE ESTABLISHED		400 ppm	500 РРМ	

SECTION V

EMERGENCY AND FIRST AID PROCEDURES

- 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
 HYSICIAN IF IRRITATION PRESISTS. WASH CLOTHING BEFORE REUSE.
 ONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE
 ECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.
- INHALATION: REMOVE VICTIM TO FRESH AIR IF EFFECTS OCCUR. IF NOT BREATHING, GIVE ARTIFICAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.
- INGESTION: DO NOT INDUCE VOMITING. IF PATIENT IS CONSCIOUS AND CAN SWALLOW, GIVE TWO GLASSES OF WATER (160Z.). GET IMMEDIATE MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVLUSING PERSON.

SECTION VI

SUPPLEMENTAL HEALTH INFORMATION

CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION. HEALTH STUDIES HAVE SHOWN THAT MANY PETROLIUM HYDROCARBONS POSE POTENTIAL HUMAN HEALTH RISKS WHICH VARY FROM PERSON TO PERSON. AS A PRECAUTION, EXPOSRE TO LIQUIDS, VAPORS, MISTS, OR FUMES SHOULD BE MINIMIZED. 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): (ALCOHOL) 180 SPECIFIC GRAVITY ($H_2O = 1$): 1.07 VAPOR PRESSURE (mm Hg @ 20°C): NOT ESTABLISHED

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SOLUBILITY (IN WATER): PARTIALLY SOLUBLE

Vapor Density (Air = 1): >1

EVAPORATION RATE (N-BUTYL ACETATE = 1): (ALCOHOL) 2.3

APPEARANCE AND ODOR: PIGMENTED, OPAQUE, VISCOUS LIQUID WITH MILD

ODOR.

SECTION VIII

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 201° F TCC

Flammable Limits /% Volume in Air: LEL = 2.0 UEL = 12.7 @ 77 degree's F Extinguishing Media: Use alcohol thre foam, dry chemical, or CO2.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: Use water spray to cool fire xposed surfaces and to protect personnel. If a leak or spill has not ignited, use er spray to disperse the vapors. Contain the runoff stream. Try to cover liquid pills with foam. Do not enter confined fire space without full bunker gear (helment ith face shield, bunker coats, gloves, ad rubber boots), including a positive pressure IOSH approved self contained breathing apparatus.

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 BASE/ESPECIALLY PRIMARY AND SECONDARY AMINES. REACTION WITH SOME CURING AGENT 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.

SECTION X

EMPLOYEE PROTECTION

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

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

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REQUIRED. WHEN HANDLING LARGE QUANTITIES, IMPERVIOUS SUITS, GLOVES, AND RUBBER BOOTS MUST BE WORN.

SECTION XI ENVIRONMENTAL PROTECTION

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 ASBORB 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., (ISOPROPANOL), 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 HAZARDS: IMMEDIATE HEALTH, DELAYED HEALTH,

FIRE

B. SARA TITLE III SECTION 313:

C. WHMIS CLASSIFICATION: CLASSES D2, D2B

D. TSCA STATUS: LISTED ON TSCA INVENTORY
E. 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

NEW 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

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