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MATERIAL SAFETY DATA SHEET

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

 24 HOUR EMERGENCY ASSISTANCE
 GENERAL ASSISTANCE

 CHEM•Tel: 1-800-255-3924
 Tele-Tech: 405-495-8848

HEALTH: 3 HAZARD RATING

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

REACTIVITY: 1 HIGH = 3 EXTREME = 4

SECTION I

PRODUCT: PM-126 PART B HARDENER

CHEMICAL NAME: MIXTURE
CHEMICAL FAMILY: AMINE

PRODUCT DESCRIPTION: MEDIUM RATE EPOXY CURING AGENT

SECTION II-A PRODUCT / INGREDIENT No. CAS NUMBER **PERCENT COMPOSITION** 1 9046100 20-50% POLYOXYPROPYLENEDIAMINE 2 AMINOETHYLPIPERAZINE 000140-31-8 20-50% 3 25154-52-3 NONYLPHENOL 20-50%

NO.ACUTE TOXICITY DATA12.885 g/kg (rat)ACUTE DERMAL LD50
2.980 g/kg (rabbit)ACUTE INHALATION LC50
0/6 deaths (rabbit); 7 hrs2Not available900 mg/kg (rabbit)Not available

SECTION III

1.600 g/kg (rat)

3

HEALTH INFORMATION

Not available

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

>200 mg/kg (rabbit)

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, AND DROWSINESS.

INGESTION: ACUTELY TOXIC. 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.

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.

SECTION IV

OCCUPATIONAL EXPOSURE LIMITS

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OSHA ACGIH OTHER

No. PEL/TWA PEL/CEILING TLV/TWA TLV/STEL

1 None established

2 None established

3 None established

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 <u>AT LEAST 15 MINUTES</u> 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. 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.

SECTION VII

PHYSICAL DATA

BOILING POINT (°F): >450 Specific Gravity ($H_2O = 1$): 0.953

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.

SECTION VIII

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 210 °F (PMCC)

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 NOT IGNITED, USE WATER SPRAY TO DISPERSE THE VAPORS AND TO PROVIDE PROTECTION FOR PERSONS ATTEMPTING TO STOP THE LEAK.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS: TOXIC VAPORS (HYDROGEN CYANIDE) MAY BE FORMED. HAZARDOUS COMBUSTION PRODUCTS MAY INCLUDE INTENSE HEAT, DENSE BLACK SMOKE, CARBON MONOXIDE, CARBON DIOXIDE, AND HYDROCARBON FRAGMENTS.

SECTION IX REACTIVITY

STABILITY: STABLE UNDER NORMAL CONDITIONS OF HANDLING.

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HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS AND MATERIALS TO AVOID: REACTS VIOLENTLY WITH ACIDS. AVOID ACID, OXIDIZING MATERIAL, HALOGENATED ORGANIC COMPOUNDS, ALDEHYDES, KETONES, AND ACRYLATES. RESULTS IN TEMPERATURE AND/OR PRESSURE INCREASE. AVOID EXPOSURE TO HEAT, LIGHT FLAME OR OTHER SOURCES OF IGNITION.

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

RESPIRATORY PROTECTION: AIRBORNE CONCENTRATIONS SHOULD BE KEPT TO LOWEST LEVELS POSSIBLE.

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

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.

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:

HAZARD CLASS: 8 -- CORROSIVE LIQUID

PACKING GROUP: III
IDENTIFICATION NUMBER: UN 1760
LABEL REQUIRED: CORROSIVE

D.O.T. PROPER SHIPPING NAME: CORROSIVE LIQUID, N.O.S., (POLYOXYPROPYLENEDIAMINE AND

NONYLPHENOL) MARINE POLLUTANT, 8, PG III, UN 1760

SECTION XIV

OTHER REGULATORY CONTROLS

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

A. SARA TITLE III SECTION 311/312: IMMEDIATE HEALTH HAZARD.

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B. WHMIS CLASSIFICATION: CLASSES D1B, D2, D2B, E
 C. TSCA STATUS: LISTED ON TSCA INVENTORY
 D. OSHA HAZARD COMM. STD.: HAZARDOUS CHEMICAL

SECTION XV STATE REGULATORY INFORMATION

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.

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 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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7500 MELROSE LANE OKLAHOMA CITY, OK 73127