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MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY ASSISTANCE GENERAL ASSISTANCE CHEMTEL 1-800-255-3924 TELE-TECH: 405-755-8448

HEALTH: 3 HAZARD RATING

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

REACTIVITY: 1 HIGH = 3EXTREME = 4

SECTION I

BISPHENOL A

PM-175 PART B HARDENER PRODUCT:

CHEMICAL NAME: MIXTURE CHEMICAL FAMILY: AMINE

PRODUCT DESCRIPTION: EPOXY CURING AGENT

SECTION II-A PRODUCT / INGREDIENT No. **COMPOSITION** CAS NUMBER PERCENT 000111-40-0 DIETHYLENETRIAMINE 65% 000080-05-7 35%

SECTION II-B ACUTE TOXICITY DATA No. ACUTE ORAL LD50 ACUTE DERMAL LD50 ACUTE INHALATION LC50 >2000MG/KG (RAT) HAS NOT BEEN DETERMINED **SECTION III** HEALTH INFORMATION

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

MAY CAUSE PAIN. MAY CAUSE SEVERE IRRITATION WITH CORNEAL INJURY WHICH MAY RSULT IN PERMANENT IMPAIRMENT OF VISION, EVEN BLINDNESS.

SKIN CONTACT: SHORT SINGLE EXPOSURE MAY CAUSE SKIN BURNS. DOT CLASSIFICATION: CORROSIVE. HAS CAUSED ALLERGIC SKIN REACTIONS IN HUMANS. A SINGLE PROLONGED EXPOSURE MAY RESULT IN THE MATERIAL BEING ABSORBED IN HARMFUL AMOUNTS.

INHALATION: EXPOSURE TO VAPORS GENERATED AT INCREASED TEMPERATURES OR TO MIST MAY CAUSE SERIOUS ADVERSE EFFECTS, EVEN DEATH. EXCESSIVE EXPOSURE MAY CAUSE SEVERE IRRITATION TO UPPER ERSPIRATORY TRACT AND LUNGS. MAY CAUSE RESPIRATORY SENSITIZATION IN SUSCEPTIBLE INDIVIDUALS.

SINGLE DOSE ORAL TOXICITY IS LOW. INGESTION MAY CAUSE **INGESTION:** GASTROINTESTINAL IRRITATION OR ULCERATION. INGESTION MAY CAUSE BURNS OF MOUTH AND THROAT.

SIGNS AND SYMPTOMS: N/A

AGGRAVATED MEDICAL CONDITIONS: CONTAINS COMPONENT(S) WHICH, IN ANIMALS, HAVE BEEN SHOWN TO CAUSE LIVER AND QUESTIONABLE KIDNEY AND BLADDER EFFECTS (BISPHENOL A). NO SIGNIFICANT TOXICOLOGIC EFFECTS WERE OBSERVED IN LABORATORY ANIMALS FED DIETHYLENETRIAMINE. 2HCL FOR 90 DAYS

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OTHER HEALTH EFFECTS: CANCER INFORMATION: DID NOT CAUSE CANCER IN

LONG-TERM ANIMAL STUDIES (COMPONENTS).

SECTION IV		0	OCCUPATIONAL EXPOSURE LIMITS		
' <u>-</u>	OSHA		ACGIH		OTHER
No.	PEL/TWA NONE ESTABLISHED	PEL/CEILING	TLV/TWA	TLV/STEL	

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER FOR AT LEAST 30MINUTES IS IMPERATIVE. PROMPT MEDICAL CONSULTATION IS ESSENTIAL.

SKIN CONTACT: IN CASE OF 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. CONSULT A

PHYSICIAN.

INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE AMOUNTS OF WATER OR MILK IF AVAILABLE AND TRANSPORT TO MEDICAL FACILITY.

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 JUDGEMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT. EXCESSIVE EXPOSURE MAY AGGRAVATE PREEXISTING ASTHMA.

SECTION VI

SUPPLEMENTAL HEALTH INFORMATION

CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION.

SECTION VII PHYSICAL DATA

BOILING POINT (°F): 207C SPECIFIC GRAVITY $(H_2O = 1)$: 1.02

VAPOR PRESSURE (mm Hg @ 20°C): 0.15 MMHG @ 20C

SOLUBILITY (IN WATER): SLIGHT VAPOR DENSITY (AIR = 1):

VAPOR DENSITY (AIR = 1): NI1

EVAPORATION RATE (N. RUTYL ACETATE = 1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): N/A

APPEARANCE AND ODOR: YELLOW LIQUID

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 225F: 107C

Flammable Limits /% Volume in Air: Lfl: 2% @ 150C ufl: 6.7% @ 150C

EXTINGUISHING MEDIA: WATER FOG, CO2, DRY CHEMICAL, FOAM. FOR LARGE SCALE FIRES, ALCOHOL RESISTANT FOAMS ARE PREFERRED IF AVAILABLE. GENERAL PURPOSE SYNTHETIC FOAMS OR PROTEIN FOAMS MAY FUNCTION, BUT MUCH LESS EFFECTIVELY. WATER FOG, APPLIED GENTLY, MAY BE USED AS A BLANKET FOR FIRE EXTINGUSHMENT. IF POSSIBLE, CONTAIN FIRE RUN OFF WATER. FOR LARGE SCALE FIRES, DIRECT WATER STREAM MAY CAUSE VIOLENT FROTHING, BUT FINE WATER SPRAY MAY HELP CONTROL SITUATION.

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SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: KEEP UNNECESSARY PEOPLE AWAY; ISOLATE HAZARD AREA AND DENY UNNECESSARY ENTRY. DENSE SMOKE EMITTED WHEN BURNED WITHOUT SUFICIENT OXYGEN. HIGHLY TOXIC FUMES ARE RELEASED IN FIRE SITUATIONS. FIRE RUN OFF MAY BE TOXIC. SEE ENVIROMENTAL SECTIONOF THIS MSDS. WHEN USING WATER SPRAY, BOIL OVER MAY OCCUR WHEN THE PRODUCT TEMPERATURE REACHES THE BOILING POINT OF WATER (TANK TYPE SCENERIO, NOT SPILLS). SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

SECTION IX REACTIVITY

STABILITY: NOT AVAILABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID: PRODUCE ABSORBS CARBON DIOXODE FROM THE

AIR.

HAZARDOUS DECOMPOSITION PRODUCTS: COMBUSTION MAY PRODUCE CO2, TOXIC CARBON

MONOXIDE. UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or postive-pressure supplied-air respirator depending on the potential airborne concentration. In misty atmospheres, use an approved organic vapor respirator in combination with a dust/mist filter.

PROTECTIVE CLOTHING: Use protective clothing impervious to this material. Selection of specific items such as faceshield, gloves, boots, apron, or full-body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Contaminated leather items, such as shoes, belts and watchbands, should be removed and destroyed.

SECTION XI

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: PROTECT PEOPLE: AVOID CONTACT WITH EYES AND SKIN. DO NOT BREATH VAPOR. WEAR PROTECTIVE EQUIPMENT INCLUDING: APPROVED GOGGLES, APPROVED RESPIRATOR AND RUBBER GLOVES.

PROTECT THE ENVIROMENT: AVOID CONTAMINATION OF DRINKING WATER, NATURAL WATER, GROUND WATER OR ANY WATERWAY. CONTAIN LIQUID TO PREVENT CONTAMINATION OF SOIL, SURFACE WATER OR GROUND WATER. PREVENT WASH WATER ENTERING NATURAL WATERWAYS OR PUBLIC WATER SUPPLIES. SPILLS SHOULD BE COLLECTED TO PREVENT CONTAMINATION OF WATERWAYS.

CLEANUP: FOR SMALL SPILLS: ABSORB WITH MATERIALS SUCH AS: CLAY, DIRT, MILLSORB AND SAND. AVOID MATERIALS SUCH AS: CELLULOSE AND SAWDUST. CLEAN UP RESIDUAL WITH NON-COMBUSTIBLE ABSORBENT MATERIAL AND WASH WITH WATER. REMOVE WITH SHOVEL. PLACE IN PROPERLY LABELED DRY SEALABLE CONTAINERS.

FOR LARGE SPILLS: CONTAIN SPILL BY DIKING TO KEEP OUT OF SEWERS. DIKE TO CONTAIN OR PREVENT WATER POLLUTION. IF POSSIBLE, STOP THE SOURCE OF THE LEAK OR RELEASE. KNOCK DOWN AND DILUTE VAPORS WITH WATER FOG OR SPRAY. COLLECT WITH VACUM EQUIPMENT. GROUND AND BOND ALL CONTAINERS AND HANDLING EQUIPMENT. FLUSH RESIDUE WITH PLENTY OF WATER.

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.

SECTION XIII

TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

HAZARD CLASS: 8 -- CORROSIVE LIQUID

PACKING GROUP: III
IDENTIFICATION NUMBER: UN1760
LABEL REQUIRED: CORROSIVE

D.O.T. PROPER SHIPPING NAME: CORROSIVE LIQUID, N.O.S., (POLYALKAMINES), 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 HAZARDS: AN IMMEDIATE HEALTH HAZARD

B. SARA TITLE III SECTION 313: CONTAINS: 4.4-ISOPROPYLIDENEDIPHENOL

C. WHMIS CLASSIFICATION: CLASSES D2A, D2B, E
D. TSCA STATUS: LISTED ON TSCA INVENTORY

E. OSHA HAZARD COMM. STD.: HAZARDOUS CHEMICAL

SECTION XV

STATE REGULATORY INFORMATION

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.

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DATE PREPARED: OCTOBER 5, 2011

PREPARED BY: MILAMAR COATINGS, INC.

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