MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY ASSISTANCE — **GENERAL ASSISTANCE**

CHEM TEL: 1-800-255-3924 — TELE-TECH: 405-755-8448

		HAZARD RATING		
HEALTH:	**3**	LEAST = 0	SLIGHT = 1	MODERATE = 2
FIRE:	**3**	HIGH = 3	EXTREME = 4	
REACTIVITY:	**0**			

SECTION I

PRODUCT: PM 580 WATERBORNE URETHANE PART B

CHEMICAL NAME: PM 580 WATERBORNE URETHANE CURE

CHEMICAL FAMILY: NOT APPLICABLE

PRODUCT DESCRIPTION: CATALYST

SECTION II-A — PRODUCT / INGREDIENT

NO.	COMPOSITION	CAS NUMBER	PERCENT
1	HOMOPOLYMER OF HDI	28182-81-2	30-60%
2	ISOPHORONE DISOCYANATE HOMOPOLYMER	53880-05-0	10-30%
3	{N}BUTYL ACETATE	123-86-4	10-30%
4	LIGHT AROMATIC SOLVENT NAPTHA (PETROLEUM)	64742-95-6	7-13%
5	ETHYLENE GLYCOL MONOBUTYLETHER	111-76-2	1-5%
6	1,2,4-TRIMETHYLBENZENE	95-63-6	1-5%
7	ISOPHORONE DIISOCYANATE (IPDI)	4098-71-9	0.1-1%

SECTION II-B — ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
1	ACUTE: 10000 MG/KG (RAT)	ACUTE: 5000 MG/KG (RABBIT)	NOT AVAILABLE
2	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
3	ACUTE: 13100 MG/KG (RAT)	NOT AVAILABLE	ACUTE: 2000 PPM 4 HOUR(S) (RAT)
4	NOT AVAILABLE	ACUTE: 4000 MG/KG (RABBIT)	ACUTE: 10200 PPM 4 HOUR(S) (RAT)
5	ACUTE: 470 MG/KG (RAT)	ACUTE: 220 MG/KG (RABBIT)	ACUTE: 500 PPM 4 HOUR(S) (RAT)
6	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
7	ACUTE: 5490 MG/KG (RAT)	ACUTE: 1000 MG/KG (RAT)	ACUTE: 13.5 PPM 4 HOUR(S) (RAT)

SECTION III — HEALTH INFORMATION

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

PONTENTIAL ACUTE HELATH EFFECTS:

EYE CONTACT: LIQUID OR SPRAY MIST MAY IRRITATE EYES. OVER-EXPOSURE MAY CAUSE SEVERE IRRITATION. INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING, AND ITCHING.

SKIN CONTACT: THIS PRODUCT MAY IRRITATE SKIN UPON CONTACT. HARMFUL IF ABSORBED THROUGH THE SKIN. MAY CAUSE SKIN SENSITIZATION. SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, SCALING, REDDENING, OR, OCCASIONALLY, BLISTERING.

INHALATION: HARMFUL IF INHALED (IRRITANT, SENSITIZER). OVER-EXPOSURE BY INHALATION OF THE VAPORS/SPRAY MIST MAY PRODUCE SEVERE IRRITATION OF RESPIRATORY TRACT, CHARACTERIZED BY COUGHING, CHOKING, OR SHORTNESS OF BREATH. MAY CAUSE SENSITIZATION BY INHALATION. MAY CAUSE NAUSEA, VOMITING AND GENERAL WEAKNESS. MASSIVE OVEREXPOSURE CAN CAUSE UNCONCIOUSNESS AND DEATH.

INGESTION: HARMFUL IF SWALLOWED. IRRITATION OR CHEMICAL BURNS OF THE MOUTH. PHARYNX, ESOPHAGUS AND STOMACH CAN DEVELOP FOLLOWING INGESTION OF THIS PRODUCT. EVEN SMALL AMOUNTS OF LIQUID ASPIRATED INTO THE LUNGS DURING INGESTION OR VOMITING MAY CAUSE PULMONARY INJURY AND POSSIBLY DEATH.

POTENTIAL CHRONIC HEALTH EFFECTS:

EYES: REPEATED OR PROLONGED CONTACT WITH SPRAY MIST MAY PRODUCE CHRONIC EY IRRITATION.

SKIN: REPEATED SKIN EXPOSURE CAN PRODUCE LOCAL SKIN DESTRUCTION, OR DERMATITIS, POSSIBLY SKIN AND/OR RESPIRATORY SENSITIZATION. (SKIN ONLY EXPOSURE CAN RESULT IN LUNG SENSITIZATION).

INGESTION: MAY BE FATAL IF SWALLOWED.

INHALATION: REPEATED OR PROLONGED INHALATION OF VAPORS/SPRAY MIST MAY LEAD TO CHRONIC RESPIRATORY IRRITATION AND DECREASE OF LUNGS CAPACITY. MAY CAUSE RESPIRATORY (LUNG) SENSITIZATION BY INHALATION AND SKIN CONTACT.

OTHER CHRONIC EFFECTS ON HUMANS:

THE SUBSTANCE IS TOXIC TO MUCOUS MEMBRANES, UPPER RESPIRATORY TRACT, LUNGS, BLOOD, KIDNEY, LIVER. EXPOSURE MAY CAUSE ASTHAMA, DECREASE OF LUNG CAPACITY, DERMATITIS AND PULMONARY OEDEMA; EFFECTS MAY BE DELAYED. SENSITIVE INDIVIDUALS MAY DEVELOP ECZEMA AND/OR ASTHMA ON INHALATION OF THIS MATERIAL. HOWEVER, IN LIGHT OF GOOD INDUSTRIAL HYGIENE, EXPOSURE TO ANY CHEMICAL SHOULD BE KEPT TO A MINIMUM.

SECTION IV — OCCUPATIONAL EXPOSURE LIMITS

	OSHA		ACGIH		OTHER
NO.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
1	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	
2	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	
3	150 STEL:200(PPM)		150 STEL: 200(PPM)		
4			50 (PPM)		
5			25(PPM)		
6			25 CEIL : 35 (PPM) / 125 CEIL : 170 (MG/M3)		
7	0.005 STEL : 0.02 (PPM) SKIN		0.005 STEL : 0.02 (PPM) SKIN/ 0.045(MG/M3) SKIN		

SECTION V — EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: CHECK FOR AND REMOVE ANY CONTACT LENSES. IMMEDIATELY FLUSH EYES WITH RUNNING (LUKEWARM) WATER FOR AT LEAST 15 MINUTES, KEEPING EYELIDS OPEN. DO NOT USE AN EYE OINTMENT. SEEK MEDICAL ATTENTION.

SKIN CONTACT: WASH GENTLY AND THOROUGHLY THE CONTAMINATED SKIN WITH RUNNING WATER AND NON-ABBRASIVE SOAP. RINSE WITH PLENTY OF RUNNING WATER (15-30 MINUTES). IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

HAZARDOUS SKIN CONTACT: IF THE PRODUCT GETS ONTO THE CLOTHED PORTION OF THE BODY, REMOVE THE CONTAMINATED CLOTHES AS QUICKLY AS POSSIBLE, PROTECTING YOUR OWN HANDS AND BODY. PLACE THE PERSON UNDER SHOWER. WASH GENTLY AND THORUGHLY THE CONTAMINATED SKIN WITH RUNNING WATER AND NON-ABRASIVE SOAP. BE PARTICULARLY CAREFUL TO CLEAN FOLDS, CREVICES, CREASES AND GROIN. RINSE WITH PLENTY OF RUNNING WATER (15-30 MINUTES). SEEK MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSING.

INHALATION: ALLOW THE PERSON TO REST IN A WELL VENTILATED AREA. LOOSEN TIGHT CLOTHING AROUND THE PERSONS NECK AND WAIST. IF SYMPTOMS PERSIST, SEEK MEDICAL ADVICE IMMEDIATLEY (SHOW THE LABEL WHEN POSSIBLE).

HAZARDOUS INHALATION: EVACUATE THE PERSON TO A SAFE AREA AS SOON AS POSSIBLE. LOOSEN TIGHT CLOTHING AROUND THE PERSON'S NECK AND WAIST. IF THE PERSON IS NOT BREATHING, ADNIMISTER MOUTH-TO-MOUTH RESUSCITATION. WARNING: IT MAY BE DANGEROUS TO THE PERSON PROVIDING AID TO GIVE MOUTH-TO-MOUTH RESUSCITATION IF THE INHALED MATERIAL IS TOXIC, INFECTIOUS OR CORROSIVE. OXYGEN MAY ADMINISTERED IF BREATHING IS DIFFICLUT. SEEK MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. HAVE A CONSCIOUS PERSON DRINK SEVERAL GLASSES OF WATER OR MILK. SEEK IMMEDIATE MEDICAL ATTENTION.

HAZARDOUS INGESTION: DO NOT INDUCE VOMITING. HAVE CONSCIOUS PERSON DRINK SEVERAL GLASSES OF WATER OR MILK. NEVER GIVE AN UNCONSCIOUS PERSON ANYTHING TO INGEST. EVEN SMALL AMOUNTS OF LIQUID ASPIRATED INTO LUNGS DURING INGESTION OR FROM VOMITING MAY CAUSE MILD TO SEVERE PULMONARY INJURY AND POLLIBLY DEATH. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF THE PERSON IS NOT BREATHING, ADMINISTER MOUTH-TO-MOUTH RESUSCITATION. WARNING: IT MAY BE DANGEROUS TO THE PERSON PROVIDING AID TO GIVE MOUTH-TO-MOUTH RESUSCITATION WHEN THE MATERIAL IS TOXIC, INFECTIOUS OR CORROSIVE. AVOID MOUTN-TO-MOUTH CONTACT BY USING MOUTH GUARDS OR SHIELDS. SEEK IMMEDIATE MEDICAL ATTENTION.

SECTION VI — SUPPLEMENTAL HEALTH INFORMATION

CONTACT A POISON CONTROL CENTER FOR ADDITIONAL TREATMENT INFORMATION.

SECTION VII — PHYSICAL DATA

BOILING POINT (°F):259.7 SPECIFIC GRAVITY (H_2O = 1): 1.06 (WATER =1)
VAPOR PRESSURE (mm Hg @ 20°C):THE HIGHEST KNOWN VALUE IS 8MM OF HG (@20°C) (N-BUTYL ACETATE.). WEIGHTED AVERAGE: 5.17 MM OF HG (@20°C)
SOLUBILITY (IN WATER): INSOLUBLE IN WATER
VAPOR DENSITY (AIR = 1):THE HIGHEST KNOWN VALUE IS 4.3 (AIR = 10 (LIGHT AROMATIC SOLVENT NAPTHA (PETROLEUM)). WEIGHTED AVERAGE: 4.1 (AIR = 1)
EVAPORATION RATE (N-BUTYL ACETATE = 1): 0.42 (LIGHT AROMATIC SLOVENT NAPHTHA (PETROLEUM)). COMPARED TO BUTYL ACETATE.
APPEARANCE AND ODOR: LIQUID, AROMATIC

SECTION VIII — FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: THE LOWEST KNOWN VALUE IS CLOSED CUP: 78.8°F. OPEN CUP 89.6°F. (CLEVELAND). (N-BUTYL ACETATE.)

FLAMMABLE LIMITS /% VOLUME IN AIR: THE GREATEST KNOWN RANGE IS LOWER: 1.1% UPPER: 10.6% (ETHYLENE GLYCOL MONOBUTYL ETHER)
EXTINGUISHING MEDIA:
SMALL FIRE: USE DRY CHEMICALS, CO2, ALCOHOL FOAM OR WATER SPRAY.
LARGE FIRE: USE WATER SPRAY OR FOG. NEVER DIRECT A WATER JET IN THE CONTAINER IN ORDER TO PREVENT ANY SPLASHING OF THE PRODUCT WHICH COULD CAUSE SPREADING OF THE FIRE. COOL THE CONTAINERS WITH WATER SPRAY OR FOG IN ORDER TO PREVENT PRESSURE BUILD UP, AUTOIGNITION OR EXPLOSION. FIREFIGHTERS SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST TOXIC AND IRRITATING FUMES. DUIRING A FIRE, ISOCYANATE VAPORS AND OTHER IRRITATING, HIGHLY TOXIC GASES MAY BE GENERATED BY THERMAL DECOMPOSITION OR COMBUSTION.
SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK. WHEN HEATED TO DECOMPOSITION IT EMITS HIGHLY TOXIC FUMES.
UNUSUAL FIRE AND EXPLOSION HAZARDS: CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS OR WHEN HEATED (DUE TO PRESSURE BUILD-UP). VAPOR FORMS EXPLOSIVE MIXTURE WITH AIR BETWEEN UPPER AND LOWER FLAMMABLE LIMITS.

SECTION IX REACTIVITY

STABILITY: THE PRODUCT IS STABLE
HAZARDOUS POLYMERIZATION:
CONDITIONS AND MATERIALS TO AVOID: INCOMPATIBLE WITH WATER, STRONG OXIDIZING AGENTS, AMINES, STRONG BASES, STRONG ACIDS, ALCOHOLS. ABSORBS MOISTURE FROM THE AIR. REACTS SLOWLY WITH WATER TO LIBERATE CO2 GAS
HAZARDOUS DECOMPOSITION PRODUCTS:

SECTION X EMPLOYEE PROTECTION

ENGINEERING CONTROLS: PROVIDE EXHAUST VENTILLATION OR OTHRE ENGINEERING CONTROLS TO KEEP THE AIRBORNE CONCENTRATIONS OF VAPORS BELOW THEIR RESPECTIVE THRESHOLD LIMIT VALUE.
PERSONAL PROTECTION: DURING MIXING, HANDLING AND APPLICATION: SPLASH GOGGLES. FULL PROTECTIVE CLOTHING. GLOVES (IMPERVIOUS). DURING SPRAYING SEAR SUITABLE RESPIRATORY EQUIPMENT. VAPOR AND SPRAY MIST ARE HARMFUL. PROPER EYE, SKIN AND RESPIRATORY PROTECTION ARE REQUIRED. WHEN AIR CONCENTRATIONS ARE NOT KNOWN, AN AIR-SUPPLIED RESPIRATOR, OR SCBA (SELF-CONTAINED BREATHING APPERATUS) IS REQUIRED, THIS WOULD MOST LIKELY OCCUR DURING SPRAY ALLOICATIONS IN CLOSED OR CONFINED SPACES. IF QIR CONCENTRATIONS ARE KNOWN AND ARE BELOW THE THRERSHOLD LIMIT VLAUES, THE AN AIR PURIFYING (WITH ORGANIC VAPOR CARTRIDGE) MAY BE WORN, THIS WOULD MOST LIKELY OCCUR DURING BRUSH AND ROLL APPLICATION, OR IN OPEN OR NON-CONFINED SPACES (FOR SPRAYIND ADD ALSO A PARTICULATE FILTER). REFER TO SOHA RESPIRATORY PROTECTION STANDARD (29 CFR 1910.134). WHEN WELDING, REFER TO OSHA STANDARD (29 CFR 1926.354): WELDING, CUTTING AND HEATING IN WAY OF PRESERVATIVE COATINGS. ATTN: AIR-PURIFYING (CARTRIDGE TYPE) RESPIRATORS ARE

NOT APPROVED FOR PROTECTION AGAINST ISOCYANATES, THUS IT IS NECESSARY TO CHANGE THE CARTRIDGE (AND GLOVES) FREQUENTLY.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES:

SMALL SPILL: ABSORF WITH AN INERT MATERIAL AND PLACE IN AN APPROPRIATE WASTE DISPOSAL CONTAINER. TREAT WITH A NEUTRALIZING SOLUTION (5% AMMONIA WATER, OR 5-10% SODIUM CARBONATE IN WATER). WEAR SUITABLE PROTECTIVE CLOTHING AND RESPIRATOR.

LARGE SPILL: POSINOUS FLAMMABLE LIQUID, INSOLUBLE OR BERY SLIGHTLY SOLUBLE IN WATER. VENTILATE. ELIMINATE ALL SOURCES OF IGNITION. WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED TO AVOID INHALATION OF THE PRODUCT. WARN PERSONNEL TO MOVE AWAY. STOP LEAK IF WITHOUT RISK. DO NOT TOUCH SPILLED MATERIAL. PREVENT ENTRYINTO SEWERS, BASEMENTS OR CONFINED AREAS; DIKE IF NEEDED. COVER WITH WET EARTH, SAND OR OTHER NON-COMBUSTIBLE MATERIAL, OR WITH DRY ABSORBENT WETTED WITH A NEUTRALIZING SOLUTION (5% AMMONIA WATER, OR 5-10% SODIUM CARBONATE IN WATER). AFTER 15 MINUTES TRANSFER IT TO WASTE CONTAINER, OR PUT IN OPEN DRUMS – FILL THE DRUMS HALF WAY. DO NOT SEAL – EVOLUTION OF C02 CAN CAUSE PRESSURE BUILD-UP. KEEP DRUMS (NOT SEALED) OUTSIED, OR IN SAFE VENTILATED AREA FOR A FEW DAYS. AFTER CLEAN-UP MONITOR THE VAPORS CONCENTRATION. USE THE NEUTRALIZING SOLUTION TO DECONTANINATE THE SURFACE AND THE TOOLS. THE SPILLED MATERIAL, CLEAN-UP RESIDUES, AND SPENT DECONTAMINATION SOLUTION ARE HAZARDOUS WASTES. CALL FOR ASSISTANCE ON DISPOSAL.

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: FLAMMABLE LIQUID
PACKING GROUP: III
IDENTIFICATION NUMBER: UN 1866
LABEL REQUIRED: FLAMMABLE
D.O.T. PROPER SHIPPING NAME: RESIN SOLUTION, FLAMMABLE, 3, UN1866, PG III

SECTION XIV OTHER REGULATORY CONTROLS

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

A. SARA TITLE III SECTION 311/312 HAZARDS:
B. SARA TITLE III SECTION 313:
C. WHMIS CLASSIFICATION:
D. TSCA STATUS: ALL COMPONENTS OF THIS PRODUCT ARE EITHER REPORTED IN EPA TSCA INVENTORY, OR EXEMPT
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.

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 PREPARED: OCTOBER 5, 2011

PREPARED BY: MILAMARCOATINGS,INC.
311 NW 122ND ST, STE 100
OKLAHOMA CITY, OK 73114