

MATERIAL SAFETY DATA SHEET**Milamar Coatings, L.L.C. 311 NW 122nd St, Ste 100 Oklahoma City, OK 73114****24-Hour Emergency Assistance**

Chem•Tel: 1-800-255-3924

Health: 2**Fire: 3****Reactivity: 0****Hazard Rating**

Least = 0

Slight = 1

Moderate = 2

High = 3

Extreme = 4

General Assistance

Tele-Tech: 405-755-8448

SECTION I**Product:** PM-500 Urethane Coating, Part A**Chemical Name:** Mixture**Chemical Family:** Polyester Polyol**Product Description:** Polyol resin**SECTION II-A Product / Ingredient**

<u>No.</u>	<u>Composition</u>	<u>CAS Number</u>	<u>Percent</u>
1	t-Butyl Acetate	540-88-5	20-30%
2	Propylene Glycol Monomethyl Ether Acetate (PMA)	108-65-6	15-20%

SECTION II-B Acute Toxicity Data

<u>No.</u>	<u>Acute Oral LD50</u>	<u>Acute Dermal LD50</u>	<u>Acute Inhalation LC50</u>
1	4.5 g/kg (rats)	Moderate irritant (rabbit)	4200 ppm (rat)
2	>8.5 g/kg (rats)	5 g/kg (rabbit)	4350 ppm (rat)

SECTION III Health Information

The health effects noted below are consistent with requirements under the OSHA Hazard Communication Standard (29 CFR 1910-1200).

Eye Contact: Liquid, aerosols, or vapors are severely irritating and can cause pain, tearing, reddening, and swelling. If left untreated, corneal damage can occur and injury is slow to heal. However, damage is usually reversible.

Skin Contact: Repeated or prolonged skin contact with the solvent can result in dry, defatted, and cracked skin causing increased susceptibility to infection. In addition, irritation (i.e., redness and swelling) that may develop into dermatitis may occur from skin contact. Solvents can penetrate the skin and may cause effects similar to those identified under inhalation symptoms.

Inhalation: Solvent vapors are irritating to the eyes, nose, and throat. Symptoms of irritation may include: red, itchy eyes, dryness of the throat, and a feeling of tightness in the chest. Other possible symptoms of overexposure include: headache, dizziness, nausea, narcosis, fatigue, and loss of appetite. Persons exposed to 200 ppm of xylene experienced eye, nose and throat irritation. Concentrations of 10,000 ppm of xylene can be immediately dangerous to life and health. Chronic exposure to organic solvents has been associated with various neurotoxic effects including permanent brain and nervous system damage. Symptoms include loss of memory, loss of intellectual ability, and loss of coordination.

Ingestion: Can result in irritation and possible corrosive action in the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the solvent resulting in chemical pneumonitis.

Signs and Symptoms: Irritation as noted above.

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.

SECTION IV Occupational Exposure Limits

No.	OSHA		ACGIH		Other
	PEL/TWA	PEL/Ceiling	TLV/TWA	TLV/STEL	
1	200 ppm				
2	Not established		Not established		

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. Obtain medical attention if irritation persists.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Call a physician if irritation persists. Wash clothing before reuse.

Inhalation: Remove victim to fresh air if effects occur. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

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.

Boiling Point (°F): Not established	Specific Gravity (H₂O = 1): 1.05
Solubility (In Water): Insoluble	
Vapor Pressure: 3.7 mm Hg (PMA) @ 20° C	
Vapor Density (Air = 1): > 1	
Evaporation Rate (N-Butyl Acetate = 1): 1 (for solvent)	
Appearance and Odor: Clear or pigmented, viscous liquid with strong solvent odor.	

Flash Point and Method: 62°F Seta flash

Flammable Limits /% Volume in Air: LEL = 7 Xylene UEL = 1 Xylene @ 77 °F

Extinguishing Media: Use foam, dry chemical, water spray, or CO₂.

Special Fire Fighting Procedures and Precautions: Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, irritating, toxic gases are present from thermal decomposition and combustion. Use water spray to cool fire-exposed surfaces and to protect personnel. Try to cover liquid spills with foam. Closed containers may explode when exposed to extreme heat. Solvent 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: Stable under normal conditions.

Hazardous Polymerization: Will not occur.

Conditions and Materials to Avoid: Avoid oxidizers. Trimethylol propane is used in the manufacture of this resin; therefore, it should not be combined with phosphorus containing materials because highly toxic fumes may be emitted in a fire situation.

Hazardous Decomposition Products: By heat and fire: CO and CO₂.

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 a respirator approved for use in organic solvent environments. 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: **Contact Lenses should not be worn.** Precautions should be taken so that persons handling this product do not breathe the vapors or have it contact the eyes or skin. In spray operations, protection must be afforded against exposure to both vapor and spray mist. 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 are required. If skin creams are used, keep the area protected only by the cream to a minimum. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

SECTION XI Environmental Protection

Spill or Leak Procedures: Evacuate nonessential personnel. Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas. Contain spill if possible. Prevent entry into sewers and waterways. Cover spill with sawdust, vermiculite, Fuller's earth, or other absorbent material. Collect material in open containers. Remove containers to a safe place and cover. Wash down spill area with water. 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. Material is hygroscopic. Keep container tightly closed when not in use to prevent contamination with foreign materials and moisture. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk storage under nitrogen blanket. Store in a cool (between 32 and 122°F), dry place with adequate ventilation. Keep away from open flames and high temperatures.

SECTION XIII Transportation Requirements

Department of Transportation Classification:

Hazard Class: 3 -- Flammable Liquid

Packing Group: II

Identification Number: UN 1866

Label Required: Flammable

D.O.T. Proper Shipping Name: Resin Solution, Flammable, 3, UN 1866, PG II

SECTION XIV Other Regulatory Controls

Not meant to be all-inclusive. Selected regulations presented.

A. SARA Title III Section 311/312 hazards: Immediate health hazard, delayed health hazard, fire hazard

B. TSCA Status: Listed on TSCA Inventory

C. OSHA Hazard Comm. Std.: Hazardous chemical

PRODUCT NAME: **PM-500 URETHANE COATING, PART A**

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SECTION XV State Regulatory Information

1. None
2. PA2, NJ2

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; NJ2 = New Jersey Other; PA = Pennsylvania Haz. Subst. List; PA2 = Pennsylvania Non-hazardous present at 3% or Greater; 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, L.L.C. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Milamar Coatings, L.L.C. assumes no responsibility for injury from the use of the product described herein.

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Prepared By: Milamar Coatings, L.L.C.
311 NW 122nd St, Ste 100
Oklahoma City, OK 73114