

MATERIAL SAFETY DATA SHEET

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Section 1. Chemical Product and Company Identification

Product Code PMR"1	
Product Name PMR POLYESTER RESIN	
Manufacturer's Name Mark V Laboratory, Inc.	Emergency Telephone Number CHEMTREC 800-424-9300
Address (Number, Street, City, State, and ZIP Code) 18 Kripes Road	Telephone Number For Information (860) 653-7201
Post Office Box 540	Date Prepared July 1, 2013
East Granby, Connecticut 06026	Signature of Preparer (optional)

Section 2. Composition / Information on Ingredients

Component	CAS Registry #	wt. %	Exposure Limits	
			ACGIH TLV	OSHA PEL
Styrene Monomer	50-42-5	25-30	50	50
Unsaturated Polyester Resin	Mixture	50-75	None	None
Others	Mixture	Trace	None	None

Section 3. Hazards Identification

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EMERGENCY OVERVIEW

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POTENTIAL HEALTH EFFECTS:

EYE CONTACT :

Direct contact may cause temporary corneal lesions. Contact with heated material may cause thermal burns.

INHALATION :

Inhalation may cause irritation to entire respiratory tract and harmful CNS effects. Symptoms include drowsiness, impaired balance, nausea, vomiting, loss of appetite and general weakness. May also cause blood changes and liver damage.

SKIN CONTACT :

Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Skin absorption may cause symptoms similar to those listed for inhalation.

INGESTION :

Swallowing large quantities may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. May cause symptoms similar to those listed for inhalation. Swallowing liquid may result in vomiting. Do not allow vomitus to be breathed into lungs, may result in chemical pneumonitis and pulmonary edema/hemorage.

CHRONIC EFFECTS / CARCINOGENICITY:

May cause allergic reactions in some individuals. Pre-existing medical conditions which may be aggravated by exposure include, but are not limited to, chronic respiratory and skin disease, and central nervous system disorder.

TERATOLOGY (BIRTH DEFECT) INFORMATION :

Product: Polyester Resin

REPRODUCTION INFORMATION :

Section 4. First Aid Measures

INHALATION :

Remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.

EYE CONTACT :

Immediately flush eyes with lots of running water for 15 minutes, lifting the upper and lower eyelids occasionally. Get immediate medical attention.

SKIN CONTACT :

Immediately wash skin with lots of soap and water. Remove contaminated clothing and shoes; wash before re-use. Get medical attention if irritation persists after washing.

INGESTION :

Do not induce vomiting. Get immediate medical attention. If vomiting occurs spontaneously, keep victim's head below his hips to prevent his breathing the vomitus into his lungs.

NOTE TO PHYSICIAN :

Section 5. Fire Fighting Measures

FLAMMABLE PROPERTIES:

FLASH POINT: 87-95

METHOD USED: UNK

FLAMMABLE LIMITS

LFL: 1.1

UFL: 6.1

EXTINGUISHING MEDIA :

Use Water Spray, Dry Chemical or Foam

FIRE & EXPLOSION HAZARDS :

Fire may produce toxic or irritation gas, fumes, vapor. Excessive heat may trigger polymerization or confined material causing explosion. Styrene vapors are uninhibited and may form polymers in vents or flame arrests of storage tanks, result: stop vents.

FIRE FIGHTING INSTRUCTIONS :**FIRE FIGHTING EQUIPMENT :**

Section 6. Accidental Release Measures

Wear protective equipment including rubber boots, rubber gloves, rubber apron and self-contained breathing apparatus in pressure demand or supplied air respirator. If spill is small, full face-piece air-purifying cartridge respirator for organic vapors is sat. Always wear eye protection. Extinguish ignition sources, all handling equipment is electronically ground. Small spills, mop or wipe up and dispose in DOT approved waste container, or absorb with non-combustible absorbent material. Keep out of sewers, storm drains, surface waters, and soil. Comply with all applicable governmental regulations on spill reporting and handling and disposal of waste.

Section 7. Handling and Storage

Keep away from heat, sparks, flames. Store in cool, dry well-ventilated place away from incompatible materials. Vent container frequently, more often in warm weather.

Electrically ground all equipment. Use only non-sparking tools. Keep container tightly closed when not in use. Do not use pressure to empty container.

Wash thoroughly after handling. Do not get in eyes, on skin or on clothing.

Repair and maintenance Precautions: Do not cut, grind, weld or drill on or near this container.

Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warning and handle empty container as if they were full.

Product: Polyester Resin

Section 8. Exposure Controls / Personal Protection**ENGINEERING CONTROLS :**

Local Mechanical exhaust ventilation capable of maintaining emissions at the point of use below the PEL.

RESPIRATORY PROTECTION :

Wear a NIOSH approved respirator appropriate for vapor or mist concentration at the point of use. Appropriate respirators may be a full face-piece or half mask air-purify cartridge, for organic vapors, self-contained in pressure demand mode or supplied air.

SKIN PROTECTION :

Long-sleeved shirt, trousers, safety shoes, rubber gloves, and rubber apron.

EYE PROTECTION :

Chemical Goggles unless full face-piece respirator is worn. Contact lenses should not be when working with chemical because may contribute to the severity of eye injury.

EXPOSURE GUIDELINE (S) :

An eyewash and safety shower should be nearby and ready for use.

Section 9. Physical and chemical Properties

APPEARANCE :	Colorless-yellow oily liquid	PHYSICAL STATE :	
BOILING POINT :	>293	SOLUBILITY IN WATER :	Slight
EVAPORATION RATE :	<1	SPECIFIC GRAVITY :	1.1
FREEZING POINT :		VAPOR DENSITY :	3.6
MELTING POINT :	-0.5	VAPOR PRESSURE :	<5
MOLECULAR WEIGHT :		VISCOSITY :	
ODOR :	Sweet, aromatic	% VOLATILE :	
pH :			

Section 10. Stability and Reactivity**CHEMICAL STABILITY :**

Stable, Avoid heat, Sparks and Open Flames.

INCOMPATIBILITY :

Acids, Oxidizing Materials.

HAZARDOUS DECOMPOSITION PRODUCTS :

May liberate toxic/irritating fumes.

HAZARDOUS POLYMERIZATION :

May Occur.

Section 11. Toxicological Information**EYE :****SKIN :**

No data found.

INGESTION :

RAT LD50 = 5 G/KG

INHALATION :

RATLCLO = 5000 PPM/8HR; Human LCLO - 10,000 PP/30Min.

SUBCHRONIC :**CHRONIC / CARCINOGENICITY :**

This material is considered a suspect animal carcinogen by the International Agency for Research in Cancer.

TERATOLOGY :**REPRODUCTION :**

May cause adverse reproductive effects, based on tests with animals.

Product: Polyester Resin

MUTAGENICITY :

This material is mutagenic in bacterial and mammalian test systems.

SENSITIZATION :

Section 12. Ecological Information

ECOTOXICOLOGICAL INFORMATION :

DISTRIBUTION :

CHEMICAL FATE INFORMATION :

Section 13. Disposal Considerations

Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state, and local regulatory agencies to ascertain proper disposal procedures.

NOTE: Empty containers can have residues, gases and mists and are subject to proper waste disposal, as above.

Section 14. Transport Information (Not meant to be all inclusive)

D.O.T. SHIPPING NAME :

TECHNICAL SHIPPING NAME :

D.O.T. HAZARD CLASS :

U.N. / N.A. NUMBER :

PRODUCT RQ (LBS) :

D.O.T. LABEL :

D.O.T. PLACARD :

FREIGHT CLASS BULK :

FREIGHT CLASS PACKAGE :

PRODUCT LABEL :

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA STATUS :

TSCA STATUS :

CERCLA REPORTABLE QUANTITY :

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES :

SECTION 311/312 HAZARDOUS CATEGORIES :

SECTION 313 TOXIC CHEMICALS :

RCRA STATUS :

CALIFORNIA PROPOSITION 65 :

Product: Polyester Resin

Section 16. Other Information

MSDS STATUS:

OTHER REGULATORY INFORMATION: DO NOT DETACH THIS SECTION FROM THE MSDS AND BE SURE TO INCLUDE THIS SECTION WHEN COPYING THE MSDS.

This product contains the following toxic chemical (s) subject to the reporting requirements of section 313 of Title III of the Super fund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Name	CAS No.	% WT
Styrene	100-42-5	25-45

NOTICE:

** The manufacturer expressly disclaims all express or implied warranties or merchantability and fitness for a particular purpose, with respect to the product or information provided herein**

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, the manufacturer makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the manufacturer's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.