



MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: M-Coat A

November 22, 2005

Vishay Micro-Measurements
Post Office Box 27777
Raleigh, NC 27611

MSDS # MGM020L

919-365-3800

CHEMTREC 1-800-424-9300 (U.S.)
703-527-3887 (Outside U.S.)

NOTE: CHEMTREC numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CAS NUMBER	CHEMICAL IDENTITY	%
1330-20-7	Xylene	53.5-58.0
100-41-4	Ethyl Benzene	5.3-9.0
(Proprietary)	Oil Modified Polyurethane	33.8-41.3

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

Inhalation: YES **Skin:** YES **Ingestion:** YES

Health Hazards (Acute and Chronic): Chronic effects may include kidney damage and/or low blood pressure.

Carcinogenicity:
NTP: Not listed
IARC Monographs: Not listed
OSHA Regulated: Not listed

Signs and Symptoms of Exposure:

INHALATION: Vapors may be irritating to the nose, throat and respiratory tract. May cause headache, nausea, vomiting, dizziness, drowsiness, narcosis, and/or unconsciousness. High vapor concentration may cause central nervous system depression.

EYE CONTACT: Liquid is minimally irritating to the eyes. High vapor concentration may also be irritating.

SKIN CONTACT: Contact with liquid is mildly irritating. Prolonged or repeated contact can result in defatting and drying of the skin resulting in dermatitis.

INGESTION: Liquid is moderately toxic and can be harmful if swallowed. May cause headache, nausea, vomiting, dizziness, gastrointestinal irritation, blurred vision, low blood pressure and central nervous system depression. Aspiration into lungs may result in aspiration pneumonitis which may be evidenced by coughing, labored breathing and cyanosis (bluish skin). In severe cases death may occur.

Conditions Generally Aggravated by Exposure: None known.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and launder before reuse. If persistent irritation occurs, get medical attention.

INGESTION: DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Get medical attention.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 80°F (26°C) Tag Closed Cup

Flammable limits: LEL: 1.0 UEL: 7.0

Extinguishing Media: Use alcohol foam, dry chemical or carbon dioxide. Water may be ineffective.

Special Firefighting Procedures: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire exposed containers cool.

Unusual Fire and Explosion Hazards: Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources; no flares, smoking or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

Respiratory Protection: Respiratory protection required if airborne concentration exceeds TLV. At concentrations up to 1000 ppm, a chemical cartridge respirator with organic vapor cartridge is recommended. Above this level, a self-contained breathing apparatus is recommended.

Ventilation:

Local Exhaust: Keep below TLV
Mechanical: Keep below TLV
Special: N/A
Other: N/A

Protective Gloves: Nitrile gloves are recommended.

Eye Protection: Safety goggles are recommended.

Other Protective Clothing or Equipment: Impervious apron is recommended.

Work / Hygienic Practices: Wash thoroughly after using.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Keep away from heat, sparks, open flame. Store in a cool, dry, well-ventilated area. Keep containers closed.

Other Precautions: Bond and ground containers when pouring to prevent static spark.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	278°F (137°C)
Vapor Pressure (mmHg):	Not known
Vapor Density (Air = 1):	3.6
Specific Gravity (H₂O = 1):	0.96
Melting Point:	Not known
Evaporation Rate (BuAc = 1):	0.6
Volatile Organic Compounds:	589 g/liter
Solubility in Water:	Negligible

Appearance and Odor: Amber liquid; solvent odor.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable.

Conditions to Avoid: Heat, flame, other sources of ignition.

Incompatibility (Materials to Avoid): Avoid contact with strong oxidizing agents.

Hazardous Decomposition or By-products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Xylenes

OSHA PEL:	100 ppm
ACGIH TLV:	100 ppm
OTHER:	STEL 150 ppm
	ORAL RAT LD ₅₀ : 4300 mg/kg
	INHALATION RAT LC ₅₀ : 5000 ppm/4H
	SKIN RABBIT LD ₅₀ : >1700 mg/kg
	IRRITATION EYE RABBIT: 87 mg mild (Std. Draize)
	IRRITATION SKIN RABBIT: 500 mg/24 moderate (Std. Draize)
	NOTE: Investigated as a tumorigen, mutagen, reproductive effector. May cause teratogenic effects.

Ethyl Benzene

OSHA PEL:	100 ppm
ACGIH TLV:	100 ppm
OTHER:	STEL 125 ppm
	ORAL RAT LD ₅₀ : 3500 mg/kg
	SKIN RABBIT LD ₅₀ : 17800 uL/kg
	NOTE: Investigated as a tumorigen, mutagen, reproductive effector. May cause teratogenic effects.

Oil Modified Polyurethane

OSHA PEL:	Not known
ACGIH TLV:	Not known
OTHER:	Not known

SECTION 12: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with all applicable local, state, and federal environmental regulations.

SECTION 13: TRANSPORTATION INFORMATION

SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Xylenes Flammable Liquid	3	II	1307

SECTION 14: REGULATORY INFORMATION**SECTION 313 SUPPLIER NOTIFICATION:**

This product contains a toxic chemical or chemicals (as listed below) subject to the reporting requirements of Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
1330-20-7	Xylenes	53.5-58.0
100-41-4	Ethyl Benzene	5.3-9.0

TSCA NOTIFICATION:

All components of this product are listed in the Toxic Substance Control Act Chemical Substance Inventory (TSCA).

SECTION 15: OTHER INFORMATION

To the best of our knowledge, the information provided above meets the requirements of the United States Occupational Safety and Health Act and regulations established under 29 CFR 1910.1200 (g)(2)(c)(1)-(4) for a mixture of hazardous chemicals which has not been tested as a whole. The data provided on this Material Safety Data Sheet is from manufacturers of the original components. Vishay Micro-Measurements specifically disclaims any and all form of liability and/or responsibility for the application of this product.