



MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: M-Coat FBT

November 17, 2005

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

MSDS # MGM026I

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	17.3
Not established	Isobutylene/Isoprene/Butene/Mineral Filler Blend	82.7

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

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

Health Hazards (Acute and Chronic): Chronic inhalation of xylene can cause headache, loss of appetite, nervousness, and pale skin. Repeated or prolonged skin contact with xylene may cause a skin rash. Repeated exposure of the eyes to high concentrations of xylene vapors may cause reversible eye damage. Repeated exposure to xylene can damage bone marrow, causing low blood cell count. Xylene may damage the liver and kidneys. Xylene is investigated as a tumorigen, mutagen, reproductive effector. Xylene may cause teratogenic effects.

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

Signs and Symptoms of Exposure:

INHALATION: Inhalation of xylene vapors may be irritating to the nose and throat. Inhalation of high xylene concentrations may result in nausea, vomiting, headache, ringing in the ears, and severe breathing difficulties which may be delayed in onset. Substernal pain, cough, and hoarseness are also reported. High xylene vapor concentrations are anesthetic and central nervous system depressants.

EYE CONTACT: Vapors cause eye irritation. Contact may cause severe irritation, possible corneal burns and eye damage.

SKIN CONTACT: Prolonged skin contact may result in loss of natural oils and often results in a characteristic dermatitis. Xylene may be absorbed through the skin.

INGESTION: Ingestion of xylene causes burning sensation in mouth and stomach, nausea, vomiting and salivation. Minute amounts aspirated into the lungs can produce a severe hemorrhagic pneumonitis with severe pulmonary injury or death.

Conditions Generally Aggravated by Exposure: Persons with pre-existing skin disorders or eye problems or impaired liver, kidney, blood, or respiratory function may be more susceptible to the effects of xylene.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES
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INHALATION: If inhaled move victim to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Call a physician immediately.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SKIN CONTACT: Thoroughly wash exposed area with soap and water for 15 minutes while removing contaminated clothing and shoes. Get medical attention. Launder contaminated clothing before re-use. Thoroughly clean shoes before reuse.

INGESTION: Aspiration hazard. If swallowed, vomiting may occur spontaneously, but do NOT induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA
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Flash Point (Method Used): 84°F (29°C) CC (For xylene)

Flammable limits: LEL: 1.1 UEL: 7.0 (For xylene)

Extinguishing Media: Use carbon dioxide, dry chemical, or foam. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak, and disperse vapors.

Special Firefighting Procedures: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in the pressure demand or other 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 may explode when exposed to heat. Contact with strong oxidizers may cause fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Ventilate area of leak or spill. Remove all ignition sources. Wear appropriate protective equipment. Keep unnecessary and unprotected personnel from entering. Use non-sparking tools and equipment. Collect in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials such as saw dust. Do not flush to sewer.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

Respiratory Protection: If the exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapor respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-facepiece organic vapor respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Ventilation: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Protective Gloves: Impervious gloves are recommended.

Eye Protection: Chemical splash goggles and/or face shield are recommended.

Other Protective Clothing or Equipment: Wear impervious clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact. A safety shower and emergency eyewash should be available in the work area.

Work / Hygienic Practices: Wash thoroughly after use and before eating, drinking or smoking.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Protect against physical damage. Store in a cool, dry, well-ventilated, location, away from any area where the fire hazard may be acute. Keep separate from incompatible materials.

Other Precautions: Avoid prolonged breathing of vapors and extended skin contact. Containers of this material may be hazardous when empty since they retain product residue.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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Boiling Point:	279-284°F (137-140°C) (for xylene)
Vapor Pressure (mmHg):	8 (for xylene)
Vapor Density (Air = 1):	3.7 (for xylene)
Specific Gravity (H₂O = 1):	≈1.1
Melting Point:	N/A
Evaporation Rate (BuAc = 1):	0.7 (for xylene)
Volatile Organic Compounds:	320 g/liter
Solubility in Water:	Negligible

Appearance and Odor: Black paste with aromatic odor.

SECTION 10: STABILITY AND REACTIVITY DATA
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Stability: Stable under ordinary conditions of use and storage.

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

Incompatibility (Materials to Avoid): Strong oxidizing agents and strong acids.

Hazardous Decomposition or By-products: Involvement in a fire causes formation of carbon monoxide and unidentified organic components.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION
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Xylene

OSHA PEL:	100 ppm (TWA)
ACGIH TLV:	100 ppm
OTHER:	150 ppm STEL
	LD ₅₀ ORAL (RAT) 4300 mg/kg
	LD ₅₀ IPR (MOUSE) 1364 mg/kg
	LD ₅₀ SKIN (RABBIT) >1700 mg/kg
	LC _{LO} INHAL (RAT-4H) 5000 ppm

Isobutylene/Isoprene/Butene/Mineral Filler Blend

OSHA PEL:	Not established
ACGIH TLV:	Not established
OTHER:	Not established

SECTION 12: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with all 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	Xylene	17.3

TSCA NOTIFICATION:

All components of this product, for which CAS numbers have been established, 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.