



MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: M-Line Rosin Solvent

November 22, 2005

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

MSDS # MGM044K

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	%
67-63-0	Isopropyl Alcohol	48.0-50.0
108-88-3	Toluene	45.0-50.0

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

Inhalation: YES Skin: YES Ingestion: Accidental

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

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

Signs and Symptoms of Exposure:

INHALATION: Inhalation of vapors may cause irritation of nose and throat, coughing, headache, nausea, vomiting, dizziness, drowsiness, irritation of upper respiratory tract, narcosis, central nervous system depression, difficult breathing, pulmonary edema, chest pains and loss of consciousness. Overexposure may be fatal.

EYE CONTACT: May cause irritation. May result in temporary corneal damage.

SKIN CONTACT: May cause irritation. Prolonged skin contact may result in dermatitis. May be rapidly absorbed by skin.

INGESTION: May cause nausea, vomiting, headache, dizziness, gastrointestinal irritation, narcosis, central nervous system depression and loss of consciousness. Overexposure by ingestion may be fatal.

Conditions Generally Aggravated by Exposure: Respiratory system disease, skin disorders, pulmonary disease.

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.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before re-use.

INGESTION: Call a physician. If swallowed, do NOT induce vomiting unless directed to do so by a physician.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 40°F (4°C) Closed Cup

Flammable limits: LEL: 1.2 UEL: 7.1

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 surface 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 and place into container for disposal. Flush area with water.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is 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: Use general or local exhaust ventilation to meet TLV requirements.

Local Exhaust: Keep below TLV

Mechanical: Keep below TLV

Special: N/A

Other: N/A

Protective Gloves: Polyethylene or neoprene gloves are recommended.

Eye Protection: Safety goggles and faceshield are recommended.

Other Protective Clothing or Equipment: Neoprene apron is recommended.

Work / Hygienic Practices: Wash thoroughly after use.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Keep containers tightly closed. Store in cool, dry, well-ventilated, flammable liquid storage area.

Other Precautions: Bond and ground containers when transferring liquid.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	180°F (82°C)
Vapor Pressure (mmHg):	36 @ 80°F (30°C)
Vapor Density (Air = 1):	3.0
Specific Gravity (H₂O = 1):	0.8
Melting Point:	N/A
Evaporation Rate (BuAc = 1):	2.8
Volatile Organic Compounds:	825 g/liter
Solubility in Water:	Partial

Appearance and Odor: Colorless liquid; benzene-like odor.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable.

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

Incompatibility (Materials to Avoid): Strong oxidizing agents, aluminum, strong acids, nitric acid, sulfuric acid, halogens, active halogen compounds, chlorine.

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

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Isopropyl Alcohol

OSHA PEL: 400 ppm (TWA)
 ACGIH TLV: 400 ppm
 OTHER: 500 ppm STEL
 LD₅₀ ORAL (RAT) 5840 mg/kg
 LD₅₀ INTRAPERITONEAL (MOUSE) 933 mg/kg
 LD₅₀ ORAL (DOG) 6150 mg/kg
 LD₅₀ SKIN (RABBIT) 13 g/kg

Toluene

OSHA PEL: 100 ppm (TWA)
 ACGIH TLV: 100 ppm
 OTHER: 150 ppm STEL
 LD₅₀ ORAL (RAT) 5000 mg/kg
 LD₅₀ INTRAPERITONEAL (MOUSE) 1.12 mg/kg
 LC₅₀ INHALATION (MOUSE) 5320 mg/kg
 LD₅₀ SKIN (RABBIT) 14 g/kg

SECTION 12: DISPOSAL CONSIDERATIONS

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

SECTION 13: TRANSPORTATION INFORMATION

SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Flammable Liquids, N.O.S. (Toluene / Isopropanol) (Isopropyl Alcohol) Flammable Liquid	3	II	1993

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
67-63-0	Isopropyl Alcohol	48.0-50.0
108-88-3	Toluene	45.0-50.0

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.

