



MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Gagekote 1

November 23, 2005

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

MSDS # MGM080A

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	%
108-88-3	Toluene	34.3
1330-20-7	Xylene	7.3
	Non-Hazardous Ingredients	58.4

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

Inhalation: Yes **Skin:** Yes **Ingestion:** Accidental

Health Hazards (Acute and Chronic): Overexposure to toluene may result in liver and kidney damage. Repeated or prolonged contact has a defatting action, causing drying, redness, and dermatitis. Exposure to toluene may affect the developing fetus.

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

Signs and Symptoms of Exposure:

INHALATION: Inhalation may cause irritation of the upper respiratory tract. Symptoms of overexposure may include fatigue, confusion, headache, dizziness and drowsiness. Peculiar skin sensations (e.g. pins and needles) or numbness may be produced. Very high concentrations may cause unconsciousness and death.

EYE CONTACT: May cause severe eye irritation with redness and pain.

SKIN CONTACT: May cause skin irritation. May be absorbed through the skin.

INGESTION: Swallowing may cause abdominal spasms and other symptoms that parallel over-exposure from inhalation. Aspiration of material into the lungs can cause chemical pneumonitis, which may be fatal.

Conditions Generally Aggravated by Exposure: Persons with pre-existing skin disorders or impaired liver or kidney function may be more susceptible to the effects of this substance. Alcoholic beverage consumption can enhance the toxic effects of this substance.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES
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INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

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

SKIN CONTACT: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician immediately.

INGESTION: Aspiration hazard. If swallowed, do NOT induce vomiting. Give large amounts of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head below knees to prevent aspiration into lungs. Get medical attention immediately.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA
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Flash Point (Method Used): 45°F (7°C) (For toluene)

Flammable limits: LEL: 3.3 UEL: 19 (For toluene)

Extinguishing Media: Dry chemical, foam or carbon dioxide. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

Special Firefighting Procedures: Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep exposed containers cool.

Unusual Fire and Explosion Hazards: Above flashpoint, vapor-air mixtures are explosive within flammable limits. Contact with strong oxidizers may cause fire or explosion. Sensitive to static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Ventilate area of leak or spill. Remove all sources of ignition. Contain and recover material when possible. Collect in an appropriate container or absorb with inert material. 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, 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.

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 into the general work area.

Protective Gloves: Wear impervious gloves to prevent exposure.

Eye Protection: Use chemical safety goggles and/or a full faceshield where splashing is possible.

Other Protective Clothing or Equipment: Use impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Work / Hygienic Practices: Maintain eyewash station and emergency shower in work area. Wash hands after using and before eating, drinking or smoking.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Do not store near heat, sparks, or flame. Keep container closed when not in use.

Other Precautions: Drums of this material should be grounded when pouring.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	>200°F (93.3°C)
Vapor Pressure (mmHg):	Not known
Vapor Density (Air = 1):	Not known
Specific Gravity (H₂O = 1):	13 pounds/gallon
Melting Point:	Not known
Evaporation Rate (BuAc = 1):	Not known
Volatile Organic Compounds:	327 g/liter
Solubility in Water:	Non-miscible

Appearance and Odor: Liquid, with aromatic benzene-like odor.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable.

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

Incompatibility (Materials to Avoid): None known.

Hazardous Decomposition or By-products: Incomplete combustion can yield low molecular weight hydrocarbons, carbon monoxide.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Toluene

OSHA PEL: 200 ppm
 ACGIH TLV: 100 ppm (150 ppm STEL)
 OTHER: Oral (RAT) LD₅₀ 636 mg/kg
 Skin (RABBIT) LD₅₀ 14100 ul/kg
 Inhalation (RAT) LC₅₀ 49 gm/m³ (4 Hour)

Xylene

OSHA PEL: 100 ppm
 ACGIH TLV: 100 ppm (150 ppm STEL)
 OTHER: Oral (RAT) LD₅₀ 4300 mg/kg
 Skin (RABBIT) LD₅₀ >1700 mg/kg
 Inhalation (RAT) LC₅₀ 5000 ppm (4 hour)

SECTION 12: DISPOSAL CONSIDERATIONS

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

SECTION 13: TRANSPORTATION INFORMATION

SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Flammable Liquid, N.O.S. (Toluene/Xylene)	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
108-88-3	Toluene	34.3
1330-20-7	Xylene	7.3

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.