



MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: RTV 3145

November 17, 2005

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

MSDS # MGM053I

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	%
1185-55-3	Methyltrimethoxysilane	7-13
13463-67-7	Titanium dioxide	1-5
68909-20-6	Trimethylated silica	15-40
70131-67-8	Dimethyl siloxane, hydroxy-terminated	>60

NOTE: Methyl alcohol forms on contact with water or humid air.

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

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

Health Hazards (Acute and Chronic): Product generates methyl alcohol which may cause blindness and damage to the nervous system.

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

When heated to temperatures above 355°F (180°C) in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin, and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.

Signs and Symptoms of Exposure:

INHALATION: Vapor may irritate nose and throat. Product generates methyl alcohol which may cause blindness and damage to nervous system. Vapor overexposure may cause drowsiness.

EYE CONTACT: Direct contact may cause mild irritation.

SKIN CONTACT: A single relatively short exposure causes no known adverse effect. Several repeated or prolonged exposures (24 to 48 hours) may cause irritation.

INGESTION: Product generates methyl alcohol which may cause blindness and possibly death if swallowed.

Conditions Generally Aggravated by Exposure: Not known.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES
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INHALATION: Remove to fresh air. Get medical attention if ill effects persist.

EYE CONTACT: Immediately flush with water for 15 minutes.

SKIN CONTACT: Wash affected area with soap and water.

INGESTION: Get medical attention. If conscious, induce vomiting. Have victim lie down, keep warm, and cover eyes to exclude light. Treat the same as methyl alcohol poisoning.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA
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Flash Point (Method Used): Not applicable

Flammable limits: LEL: Not determined UEL: Not determined

Extinguishing Media: Carbon dioxide water spray, dry chemical, foam. Water can be used to cool fire exposed containers.

Special Firefighting Procedures: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.

Unusual Fire and Explosion Hazards: None known.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Wipe up or scrape up and contain for salvage or disposal. Observe all personal protection equipment recommendations. Local, state, and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean up of releases. You will need to determine which federal, state and local laws and regulations are applicable.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

Respiratory Protection: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines. If a respirator is needed, use a self-contained breathing apparatus (SCBA) or other supplied-air respirator.

Ventilation:

Local Exhaust: Recommended to keep below TLV

Mechanical: Recommended to keep below TLV

Special: N/A

Other: N/A

Protective Gloves: No special protection is needed for routine handling.

Eye Protection: Use proper protection - safety glasses as a minimum.

Other Protective Clothing or Equipment: No special protection is needed.

Work / Hygienic Practices: Wash thoroughly after use.

NOTE: These precautions are for room temperature handling. Use at elevated temperature, or aerosol/spray applications, may require added precautions.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Keep container closed and store away from water or moisture.

Other Precautions: Use with adequate ventilation. Product evolves methyl alcohol when exposed to water or humid air. Avoid breathing vapor. Keep container closed. Avoid eye contact. Do not take internally.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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Boiling Point:	Not applicable
Vapor Pressure (mmHg):	Not applicable
Vapor Density (Air = 1):	Not applicable
Specific Gravity (H₂O = 1):	1.12
Melting Point:	Not determined
Evaporation Rate (BuAc = 1):	Not determined
Volatile Organic Compounds:	Not applicable
Solubility in Water:	None

Appearance and Odor: Gray paste; slight odor.

SECTION 10: STABILITY AND REACTIVITY DATA
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Stability: Stable.

Conditions to Avoid: None.

Incompatibility (Materials to Avoid): Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form.

Hazardous Decomposition or By-products: Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: metal oxides, carbon oxides and traces of incompletely burned carbon compounds, silicon dioxide, formaldehyde.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION
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Dimethyl siloxane, hydroxy-terminated

OSHA PEL:	N/E
ACGIH TLV:	N/E
OTHER:	N/E

Methyltrimethoxysilane

OSHA PEL:	N/E
ACGIH TLV:	N/E
OTHER:	50 ppm TWA (Dow Corning guide.)

Titanium dioxide

OSHA PEL: 10 mg/m³ TWA (total dust)
 5 mg/m³ Respirable fraction
 ACGIH TLV: 10 mg/m³ TWA
 OTHER: N/E

Trimethylated silica

OSHA PEL: N/E
 ACGIH TLV: N/E
 OTHER: 5 mg/m³ Ceiling (as dust) (Dow Corning guide)

NOTE: Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 200 ppm and ACGIH TLV Skin, TWA 200 ppm, STEL 250 ppm.

SECTION 12: DISPOSAL CONSIDERATIONS

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

SECTION 13: TRANSPORTATION INFORMATION

SHIPPING NAME	CLASS	UN NUMBER
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Not required -- Non-hazardous for transportation.

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
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None Listed

TSCA NOTIFICATION:

All chemical substances in this material are included on or exempted from listing on 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.