a Supplier of Silicones from China

MATERIAL SAFETY DATA SHEET

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NAME USED ON LABEL: METHYLDIETHOXYSILANE
CHEMICAL NAME: METHYLDIETHOXYSILANE
SYNONYMS: DIETHOXYMETHYLSILANE: DEMS
CHEMICAL FAMILY: ORGANOSILANE ESTER
FORMULA: C5H14O2Si
HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV OSHA PEL
METHYLDIETHOXYSILANE	2031-62-1	>95	not established
ETHANOL	64-17-5	<5	1000ppm

PHYSICAL DATA

Boiling Point: 94-5°C
Melting Point: <0°C
Specific Gravity: 0.83
Vapor Pressure, 25°C: not determined
Vapor Density (air = 1): ~7.5
Solubility in water: insoluble, reacts
% volatiles: 10
Evaporation rate (Butyl Acetate = 1): <1
Molecular Weight: 134.25
Other: NA
Appearance & Color: Clear liquid, characteristic odor

FIRE & EXPLOSION DATA

Flash Point, TCC: 10°C (50°F) Autoignition Temp.: 245°C
Flammability Limits- LEL: 0.7% UEL: 33.75%
Extinguishing Media: Water spray or fog, foam, carbon dioxide, dry chemical.
Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.
Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

ENVIRONMENTAL INFORMATION

Spill response: Sweep material and transfer to a suitable container for disposal.
Recommended Disposal: Incinerate. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: May cause immediate or delayed severe eye irritation.
Skin contact: May produce irritation or contact dermatitis. Material generates ethanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating effect on overexposed tissue. Prompt and

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thorough washing with soap and water will reduce or eliminate potential dermal effects. Inhalation: Inhalation may irritate the respiratory tract. Overexposure can cause lung damage - pulmonary toxin.

Note: The hydrolysis product of methyldiethoxysilane is ethanol. Overexposure to ethanol by skin absorption, inhalation or ingestion may have a narcotic effect (headache, nausea, drowsiness). Ethanol is metabolized to acetaldehyde and acetic acid which in large quantities result in metabolic acidosis, CNS depression and death due to respiratory arrest.

Oral Toxicity: not determined

Inhalation Toxicity: not determined

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Administer oxygen if needed. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. To conscious individual give one full cup of water to dilute ingested material. Get medical attention.

REACTIVITY DATA

Stability: Good short term stability in sealed containers. Slowly decomposes liberating small amounts of hydrogen.

Conditions to avoid: Material decomposes slowly in contact with moist air or with water liberating ethanol; TLV(TWA) = 1000ppm. Avoid contact with oxidizing agents. Strong bases including amines can cause disproportion of of this material to pyrophoric products. Platinum, platinum and iron salts and other Lewis acids can cause generation of flammable hydrogen gas in the presence of moisture.

Hazardous decomposition products: Ethanol, hydrogen organic acid vapors and silicon dioxide.

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved organic vapor respirator.

Eye and Face Protection: Chemical worker’s goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Short term storage in sealed containers. (May build pressure during extended storage. Vent slowly.) For long-term storage self-venting containers are required.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE LIQUID, N.O.S.

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(METHYLDIETHOXYSILANE)
DOT HAZARD CLASS: 3
DOT LABEL: FLAMMABLE LIQUID
DOT ID No: UN1993 PG II

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