

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **METHYLTRIMETHOXYSILANE - SIM6560.0**

CHEMICAL NAME: METHYLTRIMETHOXYSILANE

SYNONYMS: TRIMETHOXYMETHYLSILANE,

CHEMICAL FAMILY: ORGANOSILANE ESTER

FORMULA: C₄H₁₂O₃Si

HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
METHYLTRIMETHOXYSILANE	1185-55-3	>95		not established (TLV for methanol: 200ppm - skin)

PHYSICAL DATA

Boiling Point: 102-3°C

Specific Gravity: 0.955

Vapor Density (air = 1): > 1

% volatiles: 100

Molecular Weight: 136.22

Appearance & Color: Clear liquid, characteristic odor

Melting Point: <0°C

Vapor Pressure, 25°: not determined

Solubility in water: insoluble, reacts

Evaporation rate (Butyl Acetate = 1): <1

Viscosity: 0.5 cSt.

FIRE & EXPLOSION DATA

Flash Point, TCC: 8°C (46°F)

Autoignition Temp.: 255°C (491°F)

Flammability Limits- LEL: 1.5% UEL: 10.4%

Extinguishing Media: Water spray or fog, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Vapors extremely dangerous to eyes. 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: With adequate eye protection, absorb material and transfer to a suitable container for hydrolysis and disposal.

Recommended Disposal: In a well ventilated area with adequate personal protection, hydrolyze material by mixing with cold water. Resulting waste is a solid containing methanol. Follow all chemical pollution control regulations for land fill.

HEALTH HAZARD DATA

Eye Contact: Causes immediate or delayed severe eye irritation and possible blindness. Even mild exposures can cause conjunctivitis and corneal scarring.

Skin contact: May produce irritation or contact dermatitis. Material generates methanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating effect on overexposed tissue. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation may irritate the respiratory tract. Under experimental conditions, the kidney was found to be the target organ for similar methoxysilanes. Overexposure can cause lung damage - pulmonary toxin.

Note: The hydrolysis product of methyltrimethoxysilane is methanol.

Oral Toxicity-rat, LD50: 12,500mg/kg

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.

NOTE TO PHYSICIAN: This product reacts with water in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

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REACTIVITY DATA

Stability: Stable

Conditions to avoid: Material decomposes slowly in contact with moist air or with water liberating methanol. Avoid contact with oxidizing agents.

Hazardous decomposition products: Methanol, 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: Store in sealed containers.

Containers require grounding during use.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (METHYLTRIMETHOXYSILANE)

DOT HAZARD CLASS: 3

DOT LABEL: FLAMMABLE LIQUID

DOT ID No: UN1993

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Prepared by safety and environmental affairs ISSUE DATE SIM6560.0: 6/29/07
SUPERSEDES: 8/8/03

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