

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TRIMETHYLFLUOROSILANE - SIT8525.0**
CHEMICAL NAME: TRIMETHYLFLUOROSILANE
SYNONYMS: FLUOROTRIMETHYLSILANE; TRIMETHYLSILYLFLUORIDE
CHEMICAL FAMILY: SILICON COMPOUND
FORMULA: C₃H₉FSi

HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TRIMETHYLFLUOROSILANE	420-56-4	>95	not determined	(OSHA PEL: TWA 3ppm for HF)

PHYSICAL DATA

Boiling Point: 16-18°C	Freezing Point: -74°C
Specific Gravity: 0.79 at 0°C	Vapor Pressure, 20°C >1 atm
Vapor Density (air=1): >1	Solubility in water: reacts
% volatiles: 100	Evaporation rate (butyl acetate = 1): >1
Molecular Weight: 92.19	Other: N/A
Appearance & Color: Colorless gas with pungent suffocating odor; fumes in moist air	

FIRE & EXPLOSION DATA

Flash Point, COC: -35°C (-31°F) Autoignition Temp.: not determined
Flammability Limits: not determined

Extinguishing Media: Carbon-dioxide, dry chemical powder or alcohol resistant-foam.
Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.
Unusual Fire and Explosion Hazards: Irritating fumes, hydrogen fluoride and organic acid vapors may develop when material is exposed to moist air.

ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: In an exhausted area, mix with sodium carbonate, calcium carbonate or soda ash and then slowly add water. Absorb onto clay or vermiculite and dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

On contact with water and human tissue this compound liberates hydrogen fluoride (hydrofluoric acid).

Eye Contact: Will cause immediate or delayed severe eye irritation.

Skin contact: Will produce irritation, contact dermatitis or tissue necrosis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates of will irritate the respiratory tract. Overexposure may produce coughing, headache, nausea and lung congestion.

Oral Toxicity: not determined

Chronic Toxicity: There are no known chronic effects related to this compound. Hydrofluoric acid, the hydrolysis product has demonstrated mutagenicity and teratogenicity in laboratory bioassay.

SUGGESTED FIRST AID

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

SKIN: Flush with water, then wash with saturated solution of sodium carbonate or 3% aqueous ammonia.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

NOTE TO PHYSICIAN: *This product reacts with water and human tissues to form hydrofluoric acid . Massage a paste of 20% magnesium oxide in glycerol onto the burned areas. Inject 2-5 cc of 10% calcium gluconate beneath and around the burned areas. Gastric lavage, if swallowed, using 5% calcium chloride followed by saline catharsis.*

For ingestion, calcium gluconate intravenously and calcium lactate orally may be considered.

-2-(SIT8525.0)

REACTIVITY DATA

Stability: Stable in sealed metal cylinders.

Conditions to avoid: Combustible; avoid contact with heat, sparks or open flame.

Incompatibility (materials to avoid): Reacts with water and moisture in air liberating hydrogen fluoride.

Hazardous decomposition products: Organic acid vapors, hydrogen fluoride.

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or combination organic vapor acid gas 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 cylinders. Storage temperature not to exceed 52°C (125°F).

TRANSPORTATION

DOT SHIPPING NAME: LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.
(TRIMETHYLFLUOROSILANE)

DOT HAZARD CLASS: 2.3 Sub: 2.1

DOT LABEL: TOXIC GAS, FLAMMABLE GAS

DOT ID No: UN3160

INHALATION HAZARD ZONE: D

Prepared by safety and environmental affairs ISSUE DATE SIT8525.0: 9/2/03
SUPERSEDES: 7/31/96

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-3-(SIT8525.0)