

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TRIMETHYLSILYLPERRHENATE - SIT8598.0**
CHEMICAL NAME: TRIMETHYLSILYLPERRHENATE
SYNONYMS: TRIOXA(TRIMETHYLSILYL)RHENIUM
CHEMICAL FAMILY: RHENIUM COMPOUND
FORMULA: C₃H₉O₄ReSi

HMIS CODES HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TRIMETHYLSILYLPERRHENATE	16687-12-0	>95	not established	

PHYSICAL DATA

Boiling Point: 65-75°/1mm (sublimes)	Melting Point: 79-81°C
Specific Gravity: not determined	Vapor Pressure: N/A
Vapor Density, air =1: NA	Solubility in water: reacts
% volatiles: NA	Evaporation rate: NA
Molecular Weight: 323.39	Other: NA
Appearance & Color: White solid.	

FIRE & EXPLOSION DATA

Flash Point, COC: >65°C (>150°F) Autoignition Temp.: not determined
Flammability Limits LEL: NA UEL: NA

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.

-1-(SIT8598.0)

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: Titanium trimethylsiloxide will cause immediate or delayed severe eye irritation and may cause corneal ulceration.

Skin contact: May produce slight irritation or contact dermatitis. Material generates n-butanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating and defatting 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, cause headache or nausea.

Oral Toxicity: N/A
Inhalation Toxicity: N/A

Note: While no data have been reported for this compound, ReO_4^- anion toxicity in rats includes severe sedation and ataxia, tonic convulsions and cardiovascular collapse. In cats, rhenium causes transient hypertension with tachycardia and transient auricular and ventricular fibrillations.

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 wash out mouth with water, then give two full cups of water to dilute ingested material.

REACTIVITY DATA

Stability: Stable in sealed containers.

Conditions to avoid: Material decomposes slowly in contact with moist air and rapidly in contact with water liberating hexamethyldisiloxane. Avoid contact with oxidizing agents.

Hazardous decomposition products: Organic acid vapors and rhenium oxide.

-2-(SIT8598.0)

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 use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: CHEMICALS, NOI.

DOT HAZARD CLASS: NOT REQUIRED

DOT LABEL: NOT REQUIRED

DOT ID No: NOT REQUIRED

Prepared by safety and environmental affairs

ISSUE DATE SIT8598.0: 9/3/03

SUPERSEDES: 8/26/96

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