

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TETRAMETHOXYGERMANE - GET7500**
CHEMICAL NAME: TETRAMETHOXYGERMANE
SYNONYMS: GERMANIUM TETRAMETHOXIDE, GERMANIUM METHOXIDE
CHEMICAL FAMILY: GERMANIUM COMPOUND
FORMULA: $C_4H_{12}O_4Ge$
HMIS CODES HEALTH: 3 FLAMMABILITY: 3 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TETRAMETHOXYGERMANE	992-91-6	>95		not established
(liberates methanol in contact with air Methanol TLV(TWA) = 200ppm)				

PHYSICAL DATA

Boiling Point: 145-6°C	Melting Point: -18°C
Specific Gravity: 1.325	Vapor Pressure, 25°: 4mm
Vapor Density (air=1): >1	Solubility in water: reacts
% volatiles: 100	Evaporation rate: N/A
Molecular Weight: 196.73	Other: N/A
Appearance & Color: Clear liquid, characteristic odor of methanol	

FIRE & EXPLOSION DATA

Flash Point, COC: 34°C (93°F) Autoignition Temp.: not determined
Flammability Limits- not determined

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-(GET7500)

ENVIRONMENTAL INFORMATION

Spill response: Absorb onto non-combustible material, sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Incinerate. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation. Analogy to tetramethoxysilane suggests that significant risks may exist for exposure to tetramethoxygermane including corneal damage and blindness.

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. Overexposure can cause lung damage - pulmonary toxin.

Note: The hydrolysis product of tetramethoxygermane is methanol. Overexposure to methanol by skin absorption, inhalation or ingestion may effect vision (pain, dilated, unresponsive pupils, loss of visual acuity) or cause other symptoms including eczematoid dermatitis, conjunctivitis, headache, nausea, respiratory failure and cardiac depression.

Oral Toxicity: oral-rat, LD50: not determined

Eye Irritation: 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: Stable

Conditions to avoid: Material decomposes slowly in contact with moist air or with water liberating methanol; TLV(TWA) = 200ppm. Avoid contact with oxidizing agents.

Hazardous decomposition products: Methanol, organic vapors, germanium oxides.

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.

Containers require grounding during use.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE LIQUID, NOS (TETRAMETHOXYGERMANE)

DOT HAZARD CLASS: FLAMMABLE LIQUID

DOT LABEL: FLAMMABLE LIQUID

DOT ID No: UN1993

PG III

Prepared by safety and environmental affairs ISSUE DATE GET7500: 5/1/03
SUPERSEDES: 5/18/01

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