

**GELEST, INC.**  
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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TETRAALLYLOXYSILANE - SIT7010.0**

CHEMICAL NAME: TETRAALLYLOXYSILANE

SYNOMYS: TETRAALLYLORTHOSILICATE, SILICON ALLYLOXIDE

CHEMICAL FAMILY: SILICATE ESTER

FORMULA:  $C_8H_{20}O_4Si$

HMIS CODES    HEALTH: 4    FLAMMABILITY: 2    REACTIVITY: 1

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TETRAALLYLOXYSILANE	1067-43-2	>95	not established (allyl alcohol TLV-TWA: 2ppm (skin))	

**PHYSICAL DATA**

Boiling Point: 230°C Melting Point: <0°C

Specific Gravity: 0.982

Vapor Pressure, 25°: <1mm

Vapor Density (air = 1): >1

Solubility in water: reacts

% volatiles: < 5

Evaporation rate: not determined

Molecular Weight: 256.37

Other: NA

Appearance & Color: Clear liquid, mild lachrymator.

**FIRE & EXPLOSION DATA**

Flash Point, COC: 82°C (180°F)    Autoignition Temp.: not determined

Flammability Limits- LEL: 0.7%    UEL: 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-(SIT7010.0)

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose, LC: Lethal Concentration; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; HMIS: Hazardous Material information System; CAS No.: Chemical Abstract Service Registration Number  
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## 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

Contact with water and moisture generates allyl alcohol, a lachrymator with moderate toxicity.

Eye Contact: Severe Irritant. Lachrymator with potential for corneal damage and conjunctivitis.

Skin contact: May produce irritation or contact dermatitis. Material generates allyl alcohol 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.

Oral Toxicity: not determined - allyl alcohol oral-rat, LD50: 64mg/kg

Inhalation Toxicity: not determined - allyl alcohol ihl-man, LDLo: 1000ppm/ 1 hour

Eye Irritation: not determined - eye human 25 ppm severe irritant

## 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 allyl alcohol. Avoid contact with oxidizing agents.

Hazardous decomposition products: Allyl alcohol, 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 are required.** 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 nitrogen blanketed containers.

Containers require grounding during use.

### TRANSPORTATION

DOT SHIPPING NAME: TOXIC LIQUID, ORGANIC, N.O.S. (TETRAALLYLOXYSILANE)

DOT HAZARD CLASS: 6.1

DOT LABEL: TOXIC

DOT ID No: UN2810

PG: III

Prepared by safety and environmental affairs

ISSUE DATE SIT7010.0: 9/30/05

SUPERSEDES: 8/27/03

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