

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **LITHIUM ORTHOSILICATE tech-95 - SIL6469.2**

CHEMICAL NAME: LITHIUM ORTHOSILICATE

SYNONYMS: TETRALITHIUM ORTHOSILICATE

CHEMICAL FAMILY: INORGANIC SILICATE

FORMULA: Li_4SiO_4

HMIS CODES HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
LITHIUM ORTHOSILICATE	13453-84-4	>90	not established	(OSHA PEL, NaOH: 2mg/m ³)
LITHIUM METASILICATE	10102-24-6	<10	not established	

PHYSICAL DATA

Boiling Point: N/A
Specific Gravity: 2.33
Vapor Density (air = 1): NA
% volatiles: 0
Molecular Weight: 119.85
Appearance & Color: White powder

Melting Point: 1256°C
Vapor Pressure, 20°: <0.01mm
Solubility in water: insoluble
Evaporation rate: NA
Other: NA

FIRE & EXPLOSION DATA

Flash Point, COC: none Autoignition Temp.: NA
Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Not combustible.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe particulates.

Unusual Fire and Explosion Hazards: None

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ENVIRONMENTAL INFORMATION

Spill response: Sweep material, avoiding inhalation of particulates.

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

HEALTH HAZARD DATA

Lithium orthosilicate is a caustic material that can cause severe irritation and caustic burns.

Eye Contact: Particulates will cause immediate or delayed eye irritation.

Skin contact: Will produce irritation. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of particulates may irritate the respiratory tract. Overexposure may produce coughing, headache and nausea.

Oral Toxicity: not determined

Chronic Toxicity: There are no known chronic effects related to this compound.

SUGGESTED FIRST AID

Treat exposures by protocols for mild caustic.

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. Call a physician.

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

REACTIVITY DATA

Stability: Stable. Slowly reacts with moisture and carbon dioxide to form lithium metasilicate and lithium carbonate.

Conditions to avoid: None determined

Incompatibility (materials to avoid): Fluorine gas, hydrofluoric acid.

Hazardous decomposition products: When heated to decomposition emits lithium peroxide, lithium hydroxide and silicates.

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SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV for particulates, a dust mask is required.

Eye and Face Protection: Safety glasses.

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 under an inert atmosphere below 20°C.

TRANSPORTATION

DOT SHIPPING NAME: NOT REGULATED

DOT HAZARD CLASS: NOT REGULATED

DOT LABELS: NOT REQUIRED

DOT ID No: NOT REQUIRED

Prepared by safety and environmental affairs MSDS ISSUE DATE SIL6469.2: 1/20/15
SUPERSEDES: none

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