

GELEST, INC.

11 East Steel Rd. Morrisville, PA 19067
Phone: (215) 547-1015

MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **LITHIUM t-BUTOXIDE - AKL454**

CHEMICAL NAME: LITHIUM t-BUTOXIDE

SYNONYMS: 2-METHYL-2-PROPANOL, LITHIUM SALT, LITHIUM tert-BUTYLATE

CHEMICAL FAMILY: METAL ALCOHOLATE

FORMULA: C₄H₉OLi

HMIS CODES HEALTH: 3 FLAMMABILITY: 3 REACTIVITY: 2

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
LITHIUM t-BUTOXIDE	1907-33-1	>95	not established	not established

PHYSICAL DATA

Boiling Point: 110°C/.01-sublimes

Specific Gravity: not determined

Vapor Density, air =1: N/A

% volatiles: NA

Molecular Weight: 80.05

Appearance & Color: White to off-white powder.

Melting Point: not determined

Vapor Pressure, 20°C: <0.001mm

Solubility in water: reacts

Evaporation rate: NA

Other: NA

FIRE & EXPLOSION DATA

Flash Point, COC: NA

Autoignition Temp.: not determined

Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Dry chemical extinguisher, dry soda ash, or dry sodium chloride. Do not use water or carbon dioxide.

Special Fire Fighting Procedures: Protect against caustic dust, smoke and water. Wear pressure demand self-contained breathing apparatus with full facepiece and full protective clothing.

Unusual Fire and Explosion Hazards: Irritating fumes and caustic vapors may develop when material is exposed to elevated temperatures or open flame.

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ENVIRONMENTAL INFORMATION

Spill response: Ventilate area. Eliminate ignition sources. Scoop material into a dry metal container and cover loosely. Take to a chemical disposal area, then flush with a copious amount of water, collecting all caustic wastewater for proper disposal.

Recommended disposal: Treat quantities of 500 grams or less by flooding with water. Water solution will be caustic. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Lithium t-butoxide will cause immediate or delayed severe caustic burns to the eyes.

Skin contact: Will cause irritation and burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.

Inhalation: Inhalation will cause sneezing, irritation and burns.

Oral Toxicity: not determined

Inhalation Toxicity: not determined

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes, holding eyes open. Get medical attention.

SKIN: Immediately shake or brush off any loose material, then flush with water for at least fifteen minutes.

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. Give a demulscent such as milk, olive oil, or margarine in small amounts, up to two or three tablespoons.

REACTIVITY DATA

Stability: Stable under nitrogen or argon in sealed containers.

Conditions to avoid: Material decomposes slowly in contact with moist air and rapidly in contact with water, possibly igniting. Avoid contact with moist air, water, acids, alcohols, ketones, esters, carbon dioxide, halogens.

Hazardous decomposition products: Lithium hydroxide, t-butanol and caustic organic vapors.

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SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, a NIOSH approved particulate filter - caustic organic vapor type respirator should be worn.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. Long-sleeved fire-resistant lab uniform or coverall is recommended. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store under dry nitrogen or argon in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE SOLIDS, CORROSIVE, ORGANIC N.O.S.
(LITHIUM t-BUTOXIDE)

DOT HAZARD CLASS: 4.1 SUB: 8

DOT LABELS: FLAMMABLE SOLID, CORROSIVE

DOT ID No: UN 2925 PG: II

Prepared by safety and environmental affairs ISSUE DATE AKL454: 2/4/11
SUPERSEDES: 1/3/11

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