

MATERIAL SAFETY DATA SHEET

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PRODUCTS: Regenerant for Lithium Cation-exchange Columns

Cat. No. RG003

Section I – General

CAS #: [1310-66-3]
FORMULA: LiOH
CHEMICAL NAME: Lithium hydroxide, 0.1*N*
SYNONYMS: None
CHEMICAL FAMILY: Aqueous alkali solution

Section II – Hazardous Ingredients

1: Lithium hydroxide, 0.1*N*

Section III – Physical Data

MELTING POINT: Not available
BOILING POINT: 100°C (approximately)
VAPOR PRESSURE: < 17 mm Hg @ 20°C
% VOLATILITY BY VOLUME: 98+%
APPEARANCE: Clear, odorless solution
SOLUBILITY: Aqueous solution

Section IV – Toxicity Data

RTECS #: OJ6307080
RTECS NAME: Lithium hydroxide
REVIEWS: Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data for crystalline LiOH (pure) and NaOH are presented here; Since NaOH is similar to LiOH with regards to irritant/corrosive potential. RG003 is 0.1*N* LiOH. Refer to actual entry in RTECS for complete information.

Section V – Health Hazards and First Aid

ACUTE EFFECTS: For crystalline LiOH: corrosive to eyes (may cause blindness) skin, nose, and throat. For crystalline NaOH: 1%/24 hrs eye-monkey: severe irritation; 50mg/24 hrs skin-rabbit: severe irritation; 1% eye-rabbit: severe irritation; 50µg/24 hrs eye-rabbit: severe irritation; 1mg/24 hrs eye-rabbit: severe irritation; Pure NaOH is an eye and mucous membrane irritant and severe skin irritant. The RG003 solution with a concentration of 0.1*N* LiOH will irritate skin, eyes, and mucous membranes. Carcinogen status: none.
CHRONIC EFFECTS: Prolonged exposure may cause bronchial irritation, coughing, bronchial pneumonia, and gastrointestinal disturbances.

- EYE CONTACT: Flush with plenty of water for at least 15 minutes; assure adequate flushing by separating eyelids with fingers. Get medical attention.
- SKIN CONTACT: Rinse with 1% acetic acid (or vinegar) to neutralize, followed with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. For chemical burns, apply sterile bandage securely, but not too tightly. Get medical attention.
- INGESTION: Give water freely and/or 1% acetic acid (or vinegar), followed by milk. Do not induce vomiting. Get medical attention immediately.

Section VI – Fire and Explosion Hazards

- FLASHPOINT: Not flammable
- EXTINGUISHING MEDIA: Use extinguishing media appropriate to surrounding fire conditions.
- FIREFIGHTING PROCEDURE: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- UNUSUAL HAZARDS: Not applicable
- EXPLOSIVE PROPERTIES: Not explosive

Section VII – Reactivity

- GENERAL: Stable
- INCOMPATIBILITIES: Store away from strong acid. Primary and secondary amines will cause non-hazardous contamination of this solution.
- HAZARDOUS COMBUSTION OR
DECOMPOSITION PRODUCTS: Will not occur.

Section VIII – Spill or Leak Procedures

- SPILL PROCEDURE: Wear eye protection and rubber / latex / vinyl gloves. Neutralize spill with diluted acetic acid. Soak up spill with rags, paper towels, sponge; rinse away or discard. Clean spill-area thoroughly with water.
- WASTE DISPOSAL: This solution may be sent to an EPA-approved waste disposal facility. Comply with all federal, state, and local regulations.

Section IX – Precautions for Handling and Storage

- SAFETY EQUIPMENT: Chemical safety goggles, laboratory coat, rubber / latex / vinyl gloves, safety-shower with eye-wash.
- HANDLING PROCEDURES: Avoid eye and skin contact. Do not ingest. Wear safety glasses and gloves.
- STORAGE PROCEDURES: Store away from strong acid, at room temperature.

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