

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lithium Hydroxide, Monohydrate
CHEMICAL FAMILY: Alkali
MOLECULAR FORMULA: LiOH·H₂O
ALTERNATE TRADE NAME(S): Lectro® Lyte 900 salt
GENERAL USE: Industrial Manufacturing

MANUFACTURER
FMC CORPORATION
Lithium Division
P.O. Box 795
Bessemer City, NC 28016-0795
General Information: (704) 868-5300

Emergency Telephone Numbers:
CHEMTREC (800) 424-9300
Emergency Phone (704) 629-5361 (Plant) Call Collect 24 Hr/Day
Emergency Phone (303) 595-9048 (Medical) Call Collect

2. HAZARDS IDENTIFICATION

CLASSIFICATION: Corrosive to skin; Category 1A

LABELING:

SYMBOLS: Corrosion
SIGNAL WORD: Danger
HAZARD STATEMENTS: Causes severe skin burns and eye damage

PRECAUTIONARY STATEMENTS:

Prevention:
Do not breathe dusts or mists.
Wash thoroughly after handling.
Wear protective gloves/clothing/ and eye/face protection

Response
Wash contaminated clothing before reuse.

First Aid
See Section 4 of the MSDS.

Storage
See Section 7 of the MSDS.

Disposal
See Section 13 of the MSDS.

COMMENTS:
(See Section 11, Toxicological Information)

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS #</u>	<u>EC No.</u>	<u>Wt.%</u>	<u>Classification, Hazard Statement Codes</u>	
Lithium hydroxide, monohydrate	1310-66-3	215-183-4 (anhyd. form)	>99	Skin Corr. Cat 1A	H314

4. FIRST AID MEASURES

EYES: Immediately flush with water for at least 15 minutes, lifting the

upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

SKIN: Immediately flush with plenty of water while removing contaminated clothing and/or shoes, and thoroughly wash with soap and water. Obtain immediate medical attention. Contact a medical doctor if necessary.

INGESTION: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION: Remove to fresh air. If breathing discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration and see a medical doctor immediately.

NOTES TO MEDICAL DOCTOR:

This product is corrosive to the skin, eyes and mucous membranes of the respiratory and gastrointestinal tracts. Consideration should be given to gastric lavage, with endotracheal tube in place. Treatment is controlled removal of exposure with symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: Upper: Not available Lower: Not available.
GENERAL HAZARD: None
EXTINGUISHING MEDIA: Dry chemical, CO₂, water spray or regular foam.
HAZARDOUS COMBUSTION PRODUCTS: Corrosive lithium hydroxide dust.
FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting. This is necessary to protect against the hazards of heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases or vapors generated.

AUTOIGNITION TEMPERATURE: Not applicable
PROPERTIES CONTRIBUTING TO FLAMMABILITY: None
FLASH POINT: Not applicable
SENSITIVITY TO STATIC DISCHARGE: Not applicable
SENSITIVITY TO IMPACT: Not applicable

COMMENTS:

(See Section 10, Stability and Reactivity)

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Sweep up and place in suitable transport container. Dispose of waste according to all local and Federal laws and regulations. Before cleanup measures begin, review the entire MSDS with particular attention to Section 3, Emergency Overview and Potential Health Effects; and Section 8, Recommended Personal Protective Equipment.

7. HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or clothing. Avoid breathing dust. Wash thoroughly after handling.
STORAGE: Keep container closed. Store away from acids and water.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

<u>Chemical Name</u>	<u>TWA (ACGIH)</u>	<u>STEL/Ceiling (ACGIH)</u>	<u>PEL (OSHA)</u>	<u>STEL/Ceiling (OSHA)</u>
None				

ENGINEERING CONTROLS:

Use local exhaust ventilation to keep airborne concentrations below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

<u>Eyes And Face:</u>	Safety glasses or goggles
<u>Respiratory:</u>	When engineering controls are not adequate, wear a NIOSH/MSHA respirator approved for protection against inorganic dusts.
<u>Protective Clothing:</u>	Rubber gloves
<u>Work Hygienic Practices:</u>	Quick-drench eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>ODOR:</u>	Odorless
<u>APPEARANCE:</u>	White crystals
<u>pH:</u>	(1% solution) @ 25°C: >13
<u>PERCENT VOLATILE:</u>	Not applicable
<u>VAPOR PRESSURE:</u>	Not applicable
<u>VAPOR DENSITY:</u>	Not applicable
<u>BOILING POINT:</u>	Not applicable
<u>MELTING POINT:</u>	470°C (878°F)
<u>SOLUBILITY IN WATER:</u>	% by wt. @ 25°C (77°F): 10
<u>EVAPORATION RATE(Butyl Acetate = 1):</u>	Not applicable
<u>SPECIFIC GRAVITY:</u>	1.5 g/cc
<u>MOLECULAR WEIGHT:</u>	41.96
<u>COEFF. OIL/WATER:</u>	Not applicable
<u>ODOR THRESHOLD:</u>	Not applicable
<u>FLAMMABLE LIMITS:</u>	Upper: Not available Lower: Not available.
<u>FLASH POINT:</u>	Not applicable
<u>AUTOIGNITION TEMPERATURE:</u>	Not applicable
<u>VISCOSITY:</u>	Not applicable
<u>FLAMMABILITY:</u>	Not combustible.
<u>DECOMPOSITION TEMPERATURE:</u>	Not available
<u>EXPLOSIVE PROPERTIES:</u>	Not explosive
<u>OXIDIZING PROPERTIES:</u>	Not an oxidizer

10. STABILITY AND REACTIVITY

<u>CONDITIONS TO AVOID:</u>	None
<u>STABILITY:</u>	Stable under normal storage and temperature conditions.
<u>POLYMERIZATION:</u>	Will not occur
<u>HAZARDOUS DECOMPOSITION PRODUCTS:</u>	None
<u>INCOMPATIBLE MATERIALS:</u>	Acids, aluminum, zinc

11. TOXICOLOGICAL INFORMATION

<u>Eye Contact:</u>	No data available for the product. Corrosive.
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Skin Contact: No data available for the product.
Corrosive.

Skin Absorption: No data available for the product.
Corrosive.

Ingestion: Lithium hydroxide, anhydrous: LD₅₀ = 210 mg/kg (rat) [RTECS]

Inhalation: LC₅₀ > 6.15 mg/L (rat) (lithium hydroxide monohydrate) [FMC 199-2286]

Acute Effects From Overexposure:

This product is corrosive to eyes (may cause blindness), skin and the upper respiratory tract.

Chronic Effects From Overexposure:

Continuous inhalation exposure may cause lung damage.

Sensitization: No

Carcinogenicity: EH40: Not listed.
IARC: Not listed.
NTP: Not listed.
OSHA: Not considered a carcinogen under OSHA.
ACGIH: Not listed

Mutagenicity: No

Reproductive Toxicity: No

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Environmental toxicity testing of the product has not been carried out. The hydroxyl ion may affect the pH of the water.

Chemical Fate Information:

LiOH exists as the inorganic ions lithium and hydroxide in aqueous solutions. LiOH is not biodegraded, bioaccumulated or photodegraded.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of waste according to local and Federal laws and regulations.

14. TRANSPORT INFORMATION

UN NUMBER: UN2680

PROPER SHIPPING NAME: Lithium hydroxide

CLASSIFICATION: 8, Corrosive

LABELS: Corrosive

PACKING GROUP: II

CUSTOM TARIFF NO: 2825.20.0000

MARINE POLLUTANT: No

PIH: Not designated Poison Inhalation Hazard by US DOT.

15. REGULATORY INFORMATION

UNITED STATES

SECTION 311 HAZARD CATEGORY (40 CFR 370):
SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):

Immediate (Acute) Health Hazard

This product does not contain a toxic chemical subject to the reporting requirements of Section 313 of Emergency Planning and Community Right-To-Know Act of 1986.

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
CERCLA HAZARDOUS SUBSTANCE (40 CFR 302.4):
TSCA SEC 12B EXPORT NOTIFICATION:

Not listed

Not listed

This product is not subject to TSCA 12 (b) Export Notification Requirements.

TSCA INVENTORY STATUS (40 CFR 710):

Lithium hydroxide is listed; the hydrated form is not required to be listed.

CANADA WHMIS:

Product Identification No.: 2680

Hazard Classification: Class E (Corrosive)

Ingredient Disclosure List: Lithium hydroxide is listed

16. OTHER INFORMATION

REVISION SUMMARY: Revision # 8: Regular review completed. Sections 2, 3, 9, and 14 revised.

NFPA RATING

HEALTH: 3

FLAMMABILITY: 0

REACTIVITY: 1

SPECIAL: None

This MSDS has been prepared to meet U. S. OSHA Hazard Communication Standard, 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

type 7a

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