

5/31/05

MATERIAL SAFETY DATA SHEET

Lithium Hydroxide, Monohydrate

FMC

MSDS Ref. No: QS-MSD-064

Version: US/Canada

Date Approved: 12/17/1998

Revision No: 2

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lithium Hydroxide, Monohydrate

CHEMICAL FAMILY: Alkali

MOLECULAR FORMULA: LiOH·H₂O

SYNONYM(s): None

GENERAL USE: Chemical 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. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt. %</u>
Lithium hydroxide, monohydrate	1310-66-3 >99	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Corrosive. Odorless, white crystals.

POTENTIAL HEALTH EFFECTS: Corrosive to eyes (may cause blindness), skin, nose and throat. Continuous inhalation may cause lung damage.

COMMENTS:

(See Section 11, Toxicological Information)

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 has high corrosivity. Removal of exposure should be immediate, using copious water flushes and gastric lavage, if necessary. Treatment is otherwise symptomatic and supportive.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: Not applicable

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

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

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses or goggles

RESPIRATORY: When engineering controls are not adequate, wear a NIOSH/MSHA respirator approved for protection against inorganic dusts.

PROTECTIVE CLOTHING: Rubber gloves

WORK HYGIENIC PRACTICES: Quick-drench eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless

APPEARANCE: White crystals

pH: (1% solution) @ 25°C: >13

PERCENT VOLATILE: Not applicable

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

BOILING POINT: Not applicable

MELTING POINT: 470°C (878°F)

SOLUBILITY IN WATER: % by wt. @ 25°C (77°F): 10

EVAPORATION RATE: Not applicable

SPECIFIC GRAVITY: 1.5 g/cc

MOLECULAR WEIGHT: 41.96

COEFF. OIL/WATER: Not applicable

ODOR THRESHOLD: Not applicable

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None

STABILITY: Stable under normal storage and temperature conditions.

POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: None

INCOMPATIBLE MATERIALS: Acids, aluminum, zinc

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: No data available for the product. Corrosive.

SKIN EFFECTS: No data available for the product. Corrosive.

DERMAL LD₅₀: No data available for the product. Corrosive.

ORAL LD₅₀: No data available for the product. Corrosive.

INHALATION LC₅₀: No data available for the product. Corrosive.

ACUTE EFFECTS FROM OVEREXPOSURE: This product is corrosive to eyes (may cause blindness), skin and the upper respiratory tract.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data available for the product.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: ACGIH: Not listed

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

COMMENTS: U. S. DOT, INTERNATIONAL MARITIME, AND INTERNATIONAL AIR
Proper Shipping Name: Lithium Hydroxide, monohydrate
Classification: 8, Corrosive
Labels: Corrosive
UN Number: UN 2680
Packing Group: II

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 311 HAZARD CATEGORY (40 CFR 370):
Immediate (Acute) Health Hazard

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): 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.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): Not listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA REGULATORY (40 CFR 302.4): Not listed

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY (40 CFR 707.60): This product is not subject to TSCA 12 (b) Export Notification Requirements.

TSCA STATUS (40 CFR 710): Lithium hydroxide is listed; the hydrated form is not required to be listed.

CANADA

WHMIS (WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM):

Product Identification No.: 2680
Hazard Classification: Class E (Corrosive)
Ingredient Disclosure List: Listed

16. OTHER INFORMATION

REVISION SUMMARY Revision #: 2

This MSDS replaces the September 23, 1998 MSDS. Any changes in information are as follows:

In Section 6
Release Notes (text)

In Section 13
Disposal Method (text)

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.

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