
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lithium Bromide, Anhydrous
CHEMICAL FAMILY: Lithium Salts
MOLECULAR FORMULA: LiBr
ALTERNATE TRADE NAME(S): Lectro[®] Lyte 500 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. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt. %</u>
Lithium bromide	7550-35-8	100

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Odorless, white granular solid.
POTENTIAL HEALTH EFFECTS: This product is irritating to eyes, nose, throat, skin and mucous membranes.

COMMENTS:
(See Section 11, Toxicological Information)

4. FIRST AID MEASURES

EYES: Flush with water for at least 15 minutes. If irritation occurs and persists, contact a medical doctor.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with a finger or by giving syrup of ipecac. Never induce vomiting or give anything by mouth to an unconscious person. Contact a medical doctor.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

NOTES TO MEDICAL DOCTOR:
This product has low oral toxicity and may be irritating to the skin, eyes and mucous membranes. Treatment is symptomatic and supportive.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: Upper: Not available Lower: Not available.

GENERAL HAZARD: No known physical hazard, non-combustible.
EXTINGUISHING MEDIA: Dry chemical, CO2, water spray or regular foam.
HAZARDOUS COMBUSTION PRODUCTS: None
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 container. Dispose of waste according to 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: Avoid contact with eyes, skin or clothing. Use with adequate ventilation. Wear safety glasses or goggles and rubber gloves. Wash thoroughly after handling.

STORAGE: Keep away from strong acids. Keep container closed.

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

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

<u>APPEARANCE:</u>	White granular solid
<u>pH:</u>	(1% solution) @ 25°C: 9
<u>PERCENT VOLATILE:</u>	Not applicable
<u>VAPOR PRESSURE:</u>	Not applicable
<u>VAPOR DENSITY:</u>	Not applicable
<u>BOILING POINT:</u>	1265°C (2309°F)
<u>MELTING POINT:</u>	550°C (1022°F)
<u>SOLUBILITY IN WATER:</u>	% by wt. @ 25°C (77°F): 61
<u>EVAPORATION RATE(Butyl Acetate = 1):</u>	Not applicable
<u>SPECIFIC GRAVITY:</u>	3.5 g/cc
<u>MOLECULAR WEIGHT:</u>	86.84
<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>EXPLOSIVE PROPERTIES:</u>	Not explosive
<u>OXIDIZING PROPERTIES:</u>	Not an oxidizer

10. STABILITY AND REACTIVITY

<u>CONDITIONS TO AVOID:</u>	Contact with strong acids
<u>STABILITY:</u>	Stable
<u>POLYMERIZATION:</u>	Will not occur
<u>HAZARDOUS DECOMPOSITION PRODUCTS:</u>	None
<u>INCOMPATIBLE MATERIALS:</u>	Strong acids

11. TOXICOLOGICAL INFORMATION

<u>Eye Contact:</u>	Moderate irritant (rabbit)	[FMC Study Number 187-1000]
<u>Skin Contact:</u>	Irritant; PII = 2.1/8.0 (rabbit)	[FMC Study Number 187-1001]
<u>Skin Absorption:</u>	Dermal LD ₅₀ >2000 mg/kg (rat)	[FMC Study Number 199-2278]
<u>Ingestion:</u>	Oral LD ₅₀ > 500 mg/kg (rat)	[FMC Study Number 187-1002]
<u>Inhalation:</u>	No data available for the product. Li bromide solution, uninhibited, (52 - 54% LiBr aqueous solution): LC ₅₀ > 15.57 mg/L/4 hr. (rat)	[FMC Study Number 196-2087]

Acute Effects From Overexposure:

Lithium bromide has low oral and dermal toxicity. It is irritating to the skin, eyes, respiratory tract and mucous membranes. Large doses of lithium bromide may cause central nervous system depression.

Chronic Effects From Overexposure:

Chronic absorption of lithium bromide may cause central nervous system disturbances (drowsiness, lack of coordination, ataxia, depression, psychoses) and skin rashes.

Sensitization:

No data available for the product.
Li bromide solution, uninhibited, (52 - 54% LiBr aqueous solution):
Sensitizer (guinea pig) [FMC Study Number 196-2083]

<u>Carcinogenicity:</u>	EH40: Not listed. IARC: Not listed. NTP: Not listed. OSHA: Not considered a carcinogen under OSHA. ACGIH: Not listed
<u>Mutagenicity:</u>	No
<u>Reproductive Toxicity:</u>	No

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

48 hr. EC50 = 364 mg/L (daphnia magna) [FMC I97-2170]
96 hr. LC50 > 976 mg/L (menidia beryllina) [FMC I97-2171]
96 hr. LC50 = 438 mg/L (rainbow trout) [FMC I97-2172]

Chemical Fate Information:

LiBr exists as the inorganic ions of lithium and bromide in aqueous solutions. LiBr is not biodegraded, bioaccumulated or photodegraded. 96 hr. LC50 > 995 mg/L (mysid shrimp) [FMC I97-2173]

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

<u>PROPER SHIPPING NAME:</u>	None
<u>CLASSIFICATION:</u>	None
<u>LABELS:</u>	None
<u>UN NUMBER:</u>	None
<u>PACKING GROUP:</u>	None
<u>FLASH POINT:</u>	Not applicable
<u>CUSTOM TARIFF NO:</u>	2827.59.0000
<u>MARINE POLLUTANT:</u>	No
<u>PIH:</u>	Not designated Poison Inhalation Hazard by US DOT.

15. REGULATORY INFORMATION

UNITED STATES

<u>SECTION 311 HAZARD CATEGORY (40 CFR 370):</u>	Immediate (Acute) Health Hazard
<u>SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):</u>	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.
<u>SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):</u>	Not listed
<u>CERCLA HAZARDOUS SUBSTANCE (40 CFR 302.4):</u>	Not listed
<u>TSCA SEC 12B EXPORT NOTIFICATION:</u>	This product is not subject to TSCA 12 (b) Export Notification Requirements.
<u>TSCA INVENTORY STATUS (40 CFR 710):</u>	Listed

CANADA
WHMIS:

Product Identification No.: None
Hazard Classification: Class D, Division 2B (Eye and skin irritant)
Ingredient Disclosure List: Not listed

16. OTHER INFORMATION

REVISION SUMMARY: Revision No: 6: Hazard review conducted. Section 14 revised.

NFPA RATING

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
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 1b

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