1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lithium Bromide, Anhydrous
CHEMICAL FAMILY: Lithium Salts
MOLECULAR FORMULA: LiBr
SYNONYM(s): Lithium Bromide
ALTERNATE TRADE NAME(S): Lectro® Lyte 500 Salt
GENERAL USE: Chemical Manufacturing

MANUFACTURER
FMC CORPORATION
Lithium Division
P.O. Box 795
Bessemer City, NC 28016-0795

Emergency Telephone Numbers:
CHEMTREC (U.S.): (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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Wt.%</th>
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<tbody>
<tr>
<td>Lithium bromide</td>
<td>7550-35-8</td>
<td>100</td>
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</table>

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: Not applicable

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
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

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.

COMMENTS:
EXPOSURE LIMITS:

No data available for the product.
9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless
APPEARANCE: White granular solid
pH: (1% solution) @ 25ºC: 9
PERCENT VOLATILE: Not applicable
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
BOILING POINT: 1265ºC (2309ºF)
MELTING POINT: 550ºC (1022ºF)
SOLUBILITY IN WATER: % by wt. @ 25ºC (77ºF): 61
EVAPORATION RATE: Not applicable
SPECIFIC GRAVITY: 3.5 g/cc
MOLECULAR WEIGHT: 86.84
COEFF. OIL/WATER: Not applicable
ODOR THRESHOLD: Not applicable

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Moderate irritant (rabbit) [FMC Study Number I87-1000]
SKIN EFFECTS: Irritant; PII = 2.1/8.0 (rabbit) [FMC Study Number I87-1001]
DERMAL LD₅₀: >2000 mg/kg (rat) [FMC Study Number I99-2278]
ORAL LD₅₀: > 500 mg/kg (rat) [FMC Study Number I87-1002]
INHALATION LC₅₀: No data available for the product.
Li bromide solution, uninhibited, (52 - 54% LiBr aqueous solution): > 15.57 mg/L/4 hr. (rat) [FMC Study Number I96-2087]
SENSITIZATION: Li bromide solution, uninhibited, (52 - 54% LiBr aqueous solution): Sensitizer (guinea pig) [FMC Study Number I96-2083]
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.

**CARCINOGENICITY:**

IARC: Not listed  
NTP: Not listed  
OSHA: Not listed  
OTHER: ACGIH: Not listed

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**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]  
96 hr. LC50 > 995 mg/L (mysid shrimp) [FMC I97-2173]  

**CHEMICAL FATE INFORMATION:** LiBr exists as the inorganic ions of lithium and bromide in aqueous solutions. LiBr is not biodegraded, bioaccumulated or photodegraded.

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**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** Consult the owner of the waste for proper waste disposal procedure. Dispose of waste according to local and Federal laws and regulations.

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**14. TRANSPORT INFORMATION**

**COMMENTS:**

U.S. DOT, INTERNATIONAL MARITIME, AND INTERNATIONAL AIR  
Proper Shipping Name: None  
Classification: None  
Labels: None  
UN Number: None  
Packing Group: None
15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

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

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA REGULATORY (40 CFR 302.4): Not listed

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA INVENTORY (40 CFR 710, SUBPART B): This product is not subject to TSCA 12 (b) Export Notification Requirements.
TSCA STATUS (40 CFR 710): Listed

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): 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 #: 3

This MSDS replaces Revision #2, dated August 29, 2000. Any changes in information are as follows: Section(s): 1, 8, 11 & 16

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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