



Material Safety Data Sheet

REC'D AUG 21 1995

REVISED

LITHIUM BROMIDE SOLUTION,
UNINHIBITED
MSDS Number: QS-MSD-001
Issued: 07/07/95
Replaces: 01/17/95
Page: 1 of 5

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER:

FMC CORPORATION, LITHIUM DIVISION
P.O. BOX 795
BESSEMER CITY, NC 28016-0795
(704) 868-5300

EMERGENCY TELEPHONE NUMBERS

CHEMTREC: (800) 424-9300
MEDICAL: (303) 595-9048
FMC LITHIUM: (704) 629-5361

TRANSPORTATION
POISON CENTER (CALL COLLECT)
PLANT EMERGENCY RESPONSE TEAM (PERT)
(CALL COLLECT, 24 HOURS / EVERYDAY)

1070
LIB ALL

PRODUCT NAME: Lithium Bromide Solution, Uninhibited
TRADE NAME: Lithium Bromide Solution, Uninhibited
SYNONYMS: Lithium Bromide Aqueous Solution
CHEMICAL FORMULA: LiBr
CHEMICAL FAMILY: Lithium Salts
PRODUCT CAS NO.: 7550-35-8
PRODUCT USE: Chemical Manufacturing
VERSION: USA/Canada

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	WT %
Lithium Bromide	7550-35-8	52-56
Water	7732-18-5	44-48

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Clear, colorless, odorless solution

POTENTIAL HEALTH EFFECTS:

May be irritating to skin, eyes, respiratory tract, mucous membranes
(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.
INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.
INGESTION: Drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with finger or by giving syrup of ipecac. Never induce vomiting or give anything by mouth to an unconscious person. Contact a medical doctor.

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

5. FIRE FIGHTING MEASURES

1070

PHYSICAL HAZARD: Non combustible.

EXTINGUISHING MEDIA: Any suitable to fire in surrounding area.

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for firefighting. This is necessary to protect against the hazards of heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases or vapors generated.

FLASH POINT: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABLE LIMITS IN AIR: UPPER: Not applicable

LOWER: Not applicable

HAZARDOUS COMBUSTION PRODUCTS: None

PROPERTIES CONTRIBUTING TO FLAMMABILITY: None

SENSITIVITY TO MECHANICAL IMPACT: Not applicable

SENSITIVITY TO STATIC DISCHARGE: Not applicable

NATIONAL FIRE PROTECTION CODE 704

FIRE (RED) - 0

HEALTH (BLUE) - 1

REACTIVITY (YELLOW) - 0

SPECIFIC HAZARD - None

(See Section 10. Stability and Reactivity).

6. ACCIDENTAL RELEASE MEASURES

PROCEDURE FOR RELEASE OR SPILL:

Contain spill with absorbent. Transfer or pump into a suitable container. Dispose of waste according to local, state 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. Avoid breathing mist. Use with adequate ventilation.

Wash safety glasses or goggles and rubber gloves after handling. Wash thoroughly after handling.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use with adequate ventilation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY: If product is misting or adequate ventilation is not available, wear a NIOSH/MSHA-approved respirator.

EYES: Safety glasses or goggles.

SPECIAL CLOTHING: Rubber gloves.

OTHER: Quick-drench eyewash and safety shower.

EXPOSURE LIMITS:

COMPONENT	CAS#	WT%	TWA (ACGIH)	STEL (ACGIH)	PEL (OSHA)	CEILING (OSHA)
Lithium bromide	7550-35-8	52-56	No data available.			
Water	7732-18-5	44-48	Not applicable.			

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Replaces: 01/17/95
Page: 3 of 5

9. PHYSICAL AND CHEMICAL PROPERTIES

1070

APPEARANCE:	Clear, colorless liquid	VAPOR DENSITY: Air = 1	Not applicable
ODOR:	Odorless	VAPOR PRESSURE:	Not applicable
MOLECULAR WEIGHT:	86.84 (LiBr)	ODOR THRESHOLD:	Not applicable
BOILING POINT:	140°C (284°F)	FREEZING POINT/MELTING POINT:	Not applicable
DENSITY/SPECIFIC GRAVITY:	1.6 g/cc @ 25°C	SOLUBILITY IN WATER:	Not applicable
		% by wt. @ 25°C (77°F)	
VOLATILES (%):	Not applicable	EVAPORATION RATE:	Not applicable
		Butyl Acetate = 1	
WATER/OIL PARTITION		PH (AS IS) @ 25°C:	7 - 9
COEFFICIENT:	Not applicable	PH (1% SLURRY) @ 25°C:	7 - 9

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

ROUTE(S) OF EXPOSURE

EYE: No data available for the formulation.
Lithium bromide: Moderate irritant (rabbit) [FMC I87-1000].

INHALATION: No data available for the formulation.

SKIN CONTACT: No data available for the formulation.
Lithium bromide: Irritant; PII = 2.1/8.0 (rabbit) [FMC I87-1001]

SKIN ABSORPTION: No data available for the formulation.

INGESTION: No data available for the formulation.
Lithium bromide: Oral LD50 > 500 mg/kg (rat) [FMC I87-1002]

EFFECTS OF OVEREXPOSURE

ACUTE EFFECTS: No data available for the formulation. Lithium bromide has low oral toxicity. It is irritating to the skin, eyes, respiratory tract and mucous membranes. Large doses of lithium bromide may cause CNS depression.

CHRONIC EFFECTS: No data available for the formulation. Chronic absorption of lithium bromide may cause CNS disturbances (drowsiness, lack of coordination, ataxia, depression, psychoses) and skin rashes.

CARCINOGENICITY: Product is not indicated to be carcinogenic.

NTP Annual:	Not Listed.
IARC Monograph:	Not listed.
OSHA 29 CFR Part 1910 Subpart Z:	Not listed.
ACGIH (Appendix A):	Not listed.

12. ECOLOGICAL INFORMATION

1070

No data available.

13. DISPOSAL CONSIDERATIONS

Consult the owner of the waste for proper waste disposal procedure. Dispose of waste according to local, state and federal regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT, INTERNATIONAL MARITIME, AND INTERNATIONAL AIR

Proper Shipping Name: Chemicals, n.o.s.
Classification: Not applicable
Labels: None
UN Number: Not applicable
Packing Group: Not applicable

15. REGULATORY INFORMATION

STATE REGULATIONS

California Proposition 65: California Safe Drinking Water and Toxics Enforcement Act of 1986 requires that the Government of California develop a list of carcinogens and reproductive toxins and that no persons doing business shall knowingly expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such an individual. FMC would like you to know that our Lithium Bromide Solution Uninhibited or Inhibited (excluding chromate) contains the indicated concentration(s) of chemicals which are listed by California as chemicals known to cause cancer (A) or reproductive toxicity (B).

<u>Chemical</u>	<u>Concentration</u>	<u>Listed as A or B</u>
Lithium carbonate	0.02%	B

US FEDERAL REGULATIONS

TSCA, Inventory of Chemical Substances (40 CFR 710):
Listed

TSCA 12 (b) Export Notification (40 CFR 707.60):

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

CERCLA (40 CFR 302.4):

Not Listed

SARA Title III:

Section 302, Extremely Hazardous Substances (40 CFR 355):

Not Listed

Section 313, Toxic Chemicals (40 CFR Part 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 .

INTERNATIONAL REGULATIONS

Canadian (WHMIS) — Product Identification No.: None
Hazard Classification: Class D, Division 2B (Eye and skin irritant)
Disclosure List: Not Listed

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Page: 5 of 5

16. OTHER INFORMATION

1070

This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200 and Canadian WHMIS requirements.

Since the previous issue, revision(s) were made for this MSDS in the following section(s):
Section: All, New format

Information Contact:

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704-868-5300