Fisher Scientific CANADA
A Fisher Scientific International Company

MATERIAL SAFETY DATA SHEET

Section 1 - Chemical Product and Company Identification

MSDS Name: Lithium chloride

Catalog Numbers: AC199880000, AC199880020, AC199880050, AC199881000, AC199885000, AC413270000 AC413270000, AC413270050, AC413275000, S75461, S754611, L120-500, L121-100, L121-500, NC9548114, XXAC19988-80

Synonyms: Lithium monochloride.

Company Identification:
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#:	7447-41-8
Chemical Name:	Lithium chloride
%:	99
EINECS#:	231-212-3

Hazard Symbols: XN

Risk Phrases: 21/22 36/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! May cause central nervous system effects. Causes eye and skin irritation. Harmful if swallowed or absorbed through the skin. Target Organs: Central nervous system, eyes, skin.

Potential Health Effects

Eye: Causes moderate eye irritation. Causes redness and pain. May cause visual abnormalities including: blurring, abnormal color vision, loss of sight.

Skin: Causes severe skin irritation. Harmful if absorbed through the skin. Prolonged absorption may affect electrolyte balance and impair kidney function. Dehydration, weight loss, skin effects, and thyroid disturbances have been reported. Repeated or prolonged exposure may cause drying and cracking of the skin.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system effects. May cause blood electrolyte disturbances. Large doses of lithium may cause dizziness, prostration, and kidney damage. Dehydration, weight loss, slurred speech, blurred vision, sensory loss, ataxia (failure of muscular coordination), tremors, and convulsions may occur. May cause headache, muscle weakness and incoordination, and confusion.

Inhalation: May cause severe irritation of the upper respiratory tract with pain, burns, and inflammation. Symptoms of exposure include: increased secretions, cough, pain or respiration,

Chronic: Prolonged absorption may affect electrolyte balance and impair kidney function. Dehydration, weight loss, skin effects, and thyroid disturbances have been reported. Laboratory experiments have resulted in mutagenic effects. Chronic exposure to lithium salts may cause drowsiness, visual abnormalities, weakness, ringing in the ears, and muscle tremors. Possible risk of harm to the unborn child. May impair fertility.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 1; instability: 1;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes.

Storage: Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lithium chloride	none listed	none listed	none listed

OSHA Vacated PELs: Lithium chloride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Granules
Color: white
Odor: none reported
pH: 7-8 (50 g/l aq. sol.)
Vapor Pressure: 1.33 hPa @ 547 deg C
Vapor Density: Not available
Evaporation Rate: Negligible.
Viscosity: Not available
Boiling Point: 1382 deg C @ 760 mm Hg (2,519.60°F)
Freezing/Melting Point: 605 deg C (1,121.00°F)
Decomposition Temperature: Not available
Solubility in water: 832 g/l (20°C)
Specific Gravity/Density: 2.06 (water=1)
Molecular Formula: LiCl
Molecular Weight: 42.38

Section 10 - Stability and Reactivity

Chemical Stability: Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: Light, dust generation, exposure to moist air or water, Aqueous solutions are very mildly corrosive to most metals..

Incompatibilities with Other Materials Strong oxidizing agents, strong acids, alkali metals, bromine trifluoride, halogens, sulfuric acid.

Hazardous Decomposition Products Hydrogen chloride, chlorine, oxides of lithium.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 7447-41-8: OJ5950000

LD50/LC50: RTECS:
CAS# 7447-41-8: Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 500 mg/24H Severe;
Oral, mouse: LD50 = 1165 mg/kg;
Oral, mouse: LD50 = 1165 mg/kg;
Oral, rabbit: LD50 = 800 mg/kg;
Oral, rabbit: LD50 = 775 mg/kg;
Oral, rat: LD50 = 526 mg/kg;
Oral, rat: LD50 = 1530 mg/kg;
Skin, rabbit: LD50 = 1629 mg/kg;
Skin, rat: LD50 = 1488 mg/kg;
.

Carcinogenicity: Lithium chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 7447-41-8: 1

Canada

CAS# 7447-41-8 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1A, F, D1B, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7447-41-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 7447-41-8 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 3/29/1999

Revision #6 Date 7/27/2006

Revisions were made in Sections: 2, 3, 7, 9, 10, 11, 14, 15

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