

# Material Safety Data Sheet

Lithium Chloride, GR



## 1. Product and company identification

**Product name** : Lithium Chloride, GR  
**Product code** : LX0331  
**Supplier** : EMD Millipore Corp.  
290 Concord Rd.  
Billerica, MA 01821  
1-978-715-1335 Technical Service  
Monday - Friday: 8:00 - 6:00 PM EST  
**Synonym** : Chlorku Litu  
**Material uses** : Other non-specified industry: Analytical reagent.  
**Validation date** : 4/27/2012.  
**In case of emergency** : 800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week

## 2. Hazards identification

**Emergency overview** : WARNING!  
HARMFUL IF SWALLOWED.  
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.  
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: CENTRAL NERVOUS SYSTEM.  
MAY BE HARMFUL IF INHALED.  
Do not ingest. Do not get in eyes or on skin or clothing. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

**Physical state** : Solid. [Crystals. Powder.]

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.

**Potential acute health effects**

**Inhalation** : Irritating to respiratory system. May be harmful if inhaled.

**Ingestion** : Toxic if swallowed.

**Skin** : May be harmful in contact with skin. Irritating to skin.

**Eyes** : Irritating to eyes.

**Potential chronic health effects**

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Target organs** : May cause damage to the following organs: central nervous system (CNS).

**Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

**See toxicological information (section 11)**

### 3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
Lithium Chloride	7447-41-8	100

### 4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

### 5 . Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
halogenated compounds  
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use.

## 8. Exposure controls/personal protection

### Consult local authorities for acceptable exposure limits.

- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: nitrile rubber
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: safety glasses with side-shields
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  
Recommended: lab coat
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

- Physical state** : Solid. [Crystals. Powder.]
- Flash point** : [Product does not sustain combustion.]
- Color** : White.
- Odor** : Not available.
- Molecular weight** : 42.39 g/mole
- Molecular formula** : LiCl
- pH** : Not available.
- Boiling/condensation point** : Not available.
- Melting/freezing point** : 605°C (1121°F)
- Relative density** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Odor threshold** : Not available.

## 9 . Physical and chemical properties

Evaporation rate	: Not available.
VOC	: 0 % (w/w)
Solubility	: Soluble in the following materials: water

## 10 . Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: No specific data.
Materials to avoid	: Reactive or incompatible with the following materials: acids.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

### Acute toxicity

Product/ingredient name	Test Route	Species	Result
Lithium Chloride	LD50 Dermal	Rabbit	1629 mg/kg
	LD50 Dermal	Rat	1488 mg/kg
	LD50 Intracerebral	Rat	4800 ug/kg
	LD50 Intraperitoneal	Rat	925 mg/kg
	LD50 Intraperitoneal	Rat	514 mg/kg
	LD50 Intraperitoneal	Rat	205 mg/kg
	LD50 Intratracheal	Rat	1530 mg/kg
	LD50 Oral	Rabbit	800 mg/kg
	LD50 Oral	Rat	526 mg/kg
	LD50 Oral	Bird - wild bird species	422 mg/kg
	LD50 Subcutaneous	Rat	499 mg/kg
	TDL0 Intraperitoneal	Rat	1272 mg/kg
	TDL0 Intraperitoneal	Rat	127.182 mg/kg
	TDL0 Intraperitoneal	Rat	120 mg/kg
	TDL0 Intraperitoneal	Rat	110 mg/kg
	TDL0 Intraperitoneal	Rat	76 mg/kg
	TDL0 Intraperitoneal	Rat	63.6 mg/kg
	TDL0 Intraperitoneal	Rat	19 mg/kg
	TDL0 Intraperitoneal	Rat	8.2 mg/kg

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Observation
Lithium Chloride	Eyes - Moderate irritant	Rabbit	-	-
	Skin - Severe irritant	Rabbit	-	-

## 11 . Toxicological information

### Carcinogenicity

No known significant effects or critical hazards.

### Mutagenicity

No known significant effects or critical hazards.

### Teratogenicity

No known significant effects or critical hazards.

## 12 . Ecological information

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Lithium Chloride	Acute LC50 186000 to 316000 ug/L Fresh water	Fish - Razorback sucker - Xyrauchen texanus - Juvenile (Fledgling, Hatchling, Weanling) - 176 to 186 days - 2 g	96 hours
	Acute LC50 >105000 ug/L Marine water	Fish - Striped bass - Morone saxatilis - 1.8 g	96 hours
	Acute LC50 65000 to 81000 ug/L Fresh water	Fish - Bonytail - Gila elegans - Juvenile (Fledgling, Hatchling, Weanling) - 220 to 234 days - 2.6 g	96 hours
	Acute LC50 62000 to 75000 ug/L Fresh water	Fish - Bonytail - Gila elegans - Juvenile (Fledgling, Hatchling, Weanling) - 138 to 145 days - 1.1 g	96 hours
	Acute LC50 53000 to 69000 ug/L Fresh water	Fish - Razorback sucker - Xyrauchen texanus - Juvenile (Fledgling, Hatchling, Weanling) - 133 to 139 days - 0.9 g	96 hours
	Acute LC50 41000 to 50000 ug/L Fresh water	Fish - Colorado squawfish - Ptychocheilus lucius - Juvenile (Fledgling, Hatchling, Weanling) - 193 to 207 days	96 hours
	Acute LC50 28000 to 36000 ug/L Fresh water	Fish - Colorado squawfish - Ptychocheilus lucius - Juvenile (Fledgling, Hatchling, Weanling) - 99 to 115 days - 0.4 to 1.1 g	96 hours
	Acute LC50 25000 to 31000 ug/L Fresh water	Fish - Razorback sucker - Xyrauchen texanus - Swim-up - 10 to 17 days	96 hours
	Acute LC50 22000 to 28000 ug/L Fresh water	Fish - Bonytail - Gila elegans - Swim-up - 11 to 18 days	96 hours
	Acute LC50 17000 to 22000 ug/L Fresh water	Fish - Colorado squawfish - Ptychocheilus lucius - Swim-up - 17 to 31 days	96 hours

**Environmental effects** : No known significant effects or critical hazards.

**Other adverse effects** : No known significant effects or critical hazards.

## 13 . Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	-	CHEMICALS, N.O.S.	-	-		-

PG\* : Packing group

## 15 . Regulatory information

### United States

- HCS Classification** : Toxic material  
Irritating material  
Target organ effects
- U.S. Federal regulations** : **TSCA 8(a) IUR**: Partial exemption  
**United States inventory (TSCA 8b)**: This material is listed or exempted.  
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: Lithium Chloride  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**:  
Lithium Chloride : Immediate (acute) health hazard, Delayed (chronic) health hazard  
**Clean Water Act (CWA) 307**: No products were found.  
**Clean Water Act (CWA) 311**: No products were found.  
**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.  
**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.  
**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.
- DEA List I Chemicals ( Precursor Chemicals)** : Not listed
- DEA List II Chemicals ( Essential Chemicals)** : Not listed

### Canada

- WHMIS (Canada)** : Class D-1B: Material causing immediate and serious toxic effects (Toxic).  
Class D-2B: Material causing other toxic effects (Toxic).
- Canadian lists** : **CEPA Toxic substances**: This material is not listed.  
**Canadian ARET**: This material is not listed.  
**Canadian NPRI**: This material is not listed.  
**Alberta Designated Substances**: This material is not listed.  
**Ontario Designated Substances**: This material is not listed.  
**Quebec Designated Substances**: This material is not listed.
- CEPA DSL / CEPA NDSL** : This material is listed or exempted.

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

### EU regulations

