

## SAFETY DATA SHEET

Preparation Date: 07/01/2015

Revision date 4/18/2019

Revision Number: G2

### 1. IDENTIFICATION

#### Product identifier

**Product code:** L1109  
**Product Name:** LITHIUM CHLORIDE, CRYSTAL, REAGENT, ACS

#### Other means of identification

**Synonyms:** Chlorku litu [Polish]  
 Chlorure de lithium [French]  
**CAS #:** 7447-41-8  
**RTECS #** OJ5950000  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** Manufacture of mineral water; in pyrotechniques; soldering aluminum; in refrigerating machines; desiccant and humectant; dehumidifying agent in air conditioning; batteries; chemical intermediate for lithium metal and lithium borohydride; eutectic with potassium chloride, in metallurgy; additive to brazing fluxes; static drying agent; antistatic finish for fabrics; Catalyst for low temperature reaction between epoxides and carboxyl groups to yield polyester product; Additive in low-freezing fire-extinguishing solution; for drying gases; Dry lithium chloride is the feed material for manufacture of Li metal by electrolysis;.

**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300

**Contact Person:** Tom Tyner (USA - West Coast)

**Contact Person:** Ibad Tirmiz (USA - East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

#### Label elements

**Warning****Hazard statements**

Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves  
Wear eye/face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.  
IF ON SKIN: Wash with plenty of water  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell  
Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight-%
Lithium Chloride	7447-41-8	100

**4. FIRST AID MEASURES****First aid measures****General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

**Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

**Eye Contact:**

Flush eyes with water for 15 minutes. Get medical attention.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Causes serious eye irritation  
Causes skin irritation

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous combustion products** No information available.

**Specific hazards** No information available.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Deliquescent. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

#### **Incompatible Materials:**

Acids  
Strong oxidizing agents  
Halogens  
Bromine trifluoride

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Lithium Chloride	7447-41-8	None	None	None	None

##### **Canada**

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Lithium Chloride	7447-41-8	None	None	None	None

##### **Australia and Mexico**

Component	CAS No	Australia	Mexico
Lithium Chloride	7447-41-8	None	None

### Appropriate engineering controls

#### **Engineering measures to reduce exposure:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

## Personal Protective Equipment

<b>Eye protection:</b>	Goggles
<b>Skin and body protection:</b>	Long sleeved clothing Chemical resistant apron Gloves
<b>Respiratory protection:</b>	Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
<b>Hygiene measures:</b>	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Deliquescent. Crystals. Powder.	<b>Color:</b> White.
<b>Odor:</b> Odorless.	<b>Taste</b> Saline.	<b>Formula</b> LiCl
<b>Molecular/Formula weight (g/mole):</b> 42.39	<b>Flammability (solid, gas)</b> Non-flammable	<b>Flashpoint (°C/°F):</b> No information available
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 613°C/ 1135.4°F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> 1360°C/ 2480°F	<b>Bulk density:</b> No information available	<b>Density (g/cm3):</b> No information available
<b>Specific gravity:</b> 2.07	<b>pH</b> 6	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> -2.7	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Easily soluble in water Easily soluble in methanol Easily soluble in diethyl ether Easily soluble in n-octanol Soluble in Acetone Very soluble in pyridine Very soluble in Ethanol Very soluble in nitrobenzene Very slightly soluble in ammonium hydroxide	

Solubility in water: 842 g/l @  
25°C Solubility in water: 1,234 g/l @  
100°C Solubility in acetone: 0.0411 g/ml  
@ 25°C Solubility in methanol: 0.4236  
g/ml @ 25°C

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with acids  
Reactive with halogens  
Reactive with strong oxidizing agents

### Chemical stability

**Stability:** Deliquescent. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Incompatible materials. Exposure to moisture.

**Incompatible Materials:** Acids  
Strong oxidizing agents  
Halogens  
Bromine trifluoride

**Hazardous decomposition products:** Hydrogen chloride gas. Lithium oxides.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Principal Routes of Exposure:**

Inhalation. Ingestion.

### Acute Toxicity

#### **Component Information**

Lithium Chloride	
CAS No	7447-41-8

**LD50/oral/rat** = 526 mg/kg Oral LD50 Rat  
**LD50/oral/mouse** = 1165 mg/kg  
**LD50/dermal/rabbit** = 1629 mg/kg  
**LD50/dermal/rat** = 1488 mg/kg Dermal LD50  
**LC50/inhalation/rat** = 5.57 mg/l 4 hr  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

#### **Product Information**

**Product code:** L1109

**Product name:** LITHIUM CHLORIDE,  
CRYSTAL, REAGENT, ACS

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**LD50/oral/rat =**  
Value - Acute Tox = 526 mg/kg

**LD50/oral/mouse =**  
Value - Acute Tox Oral = 1165 mg/kg

**LD50/dermal/rabbit**  
Value - Acute Tox = 1629 mg/kg

**LD50/dermal/rat**  
VALUE - Acute Tox Dermal = 1488 mg/kg

**LC50/inhalation/rat**  
VALUE-Vapor = No information available  
VALUE-Gas = No information available  
VALUE-Dust/Mist = 5.57 mg/l

**LC50/Inhalation/mouse**  
VALUE-Vapor = No information available  
VALUE - Gas = No information available  
VALUE - Dust/Mist = No information available

**Symptoms**

**Skin Contact:** Causes skin irritation.

**Eye Contact:** Causes serious eye irritation.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** Harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. It is an antidepressant/antipsychotic and may affect behavior/central nervous system (drowsiness, mental confusion, somnolence, muscle weakness, contraction, spasticity, tremors) if ingested in high doses. It may also affect the brain (degenerate changes), metabolism (anorexia), vision (blurred vision), blood, urinary system, cardiovascular system, and liver.

**Aspiration hazard** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Prolonged or repeated ingestion may affect behavior/central nervous system. Prolonged or repeated ingestion may affect the cardiovascular system.

**Sensitization:** No information available.

**Mutagenic Effects:** May affect genetic material

**Carcinogenic effects:** Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Lithium Chloride	7447-41-8	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** May cause adverse developmental effects based on animal data  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** Cardiovascular system. Central nervous system.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*Lithium Chloride - 7447-41-8*

**Fish** 158 ppm 94 hours (Rainbow trout)  
**Crustacea** 249 ppm 48 hrs (Daphnia Magna)

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility in soil** No information available  
**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**  
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**  
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Lithium Chloride	7447-41-8	None	None	None	None

**14. TRANSPORT INFORMATION**

**DOT**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available



<b>Hazard Class</b>	No information available
<b>Subsidiary Class</b>	No information available
<b>Packing group:</b>	No information available
<b>Emergency Response Guide Number</b>	No information available
<b>Marine Pollutant</b>	No data available
<b>DOT RQ (lbs):</b>	No information available
<b>Special Provisions</b>	No Information available
<b>Symbol(s):</b>	No information available
<b>Description:</b>	No information available

**TDG (Canada)**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Marine Pollutant</b>	No Information available
<b>Description:</b>	No information available

**ADR**

<b>UN Number</b>	Not regulated
<b>Proper Shipping Name:</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Packing group</b>	No information available
<b>Subsidiary Risk:</b>	No information available

**IMDG**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Marine Pollutant</b>	No information available

**RID**

<b>UN Number</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing group</b>	No information available

**ICAO (air)**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available

**IATA**

<b>UN Number</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing group</b>	No information available
<b>Precautionary Statements - Response</b>	No information available
<b>Special Provisions</b>	No information available

## 15. REGULATORY INFORMATION

### International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Lithium Chloride	7447-41-8	PresentACTIVE	Present KE-22552	Present	Present (1)-231	Present	Present	Present 231-212-3

### U.S. Regulations

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

##### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

##### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Lithium Chloride	7447-41-8	Not Listed	Not Listed	Not Listed	Not Listed

### CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Lithium Chloride	7447-41-8	None	None	None	None	None

### U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Lithium Chloride	7447-41-8	Not Applicable	Not Applicable

### Canada

#### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)

Lithium Chloride	7447-41-8	Present	Not Listed
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<b>Component</b>	<b>CAS No</b>	<b>CEPA Schedule I - Toxic Substances</b>
Lithium Chloride	7447-41-8	Not listed
<b>Component</b>	<b>CAS No</b>	<b>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</b>
Lithium Chloride	7447-41-8	Not listed

### EU Classification

#### EU GHS - SV - CLP 1272/2008

<b>Component</b>	<b>CAS No</b>	<b>EU GHS - SV - CLP (1272/2008)</b>
Lithium Chloride	7447-41-8	

#### EU - CLP (1272/2008)

#### **R-phrase(s)**

R22 - Harmful if swallowed

R36/38 - Irritating to eyes and skin

#### **S-phrase(s)**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S46 - If swallowed, seek medical advice immediately and show this container or label

S36/37 - Wear suitable protective clothing and gloves

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Lithium Chloride	7447-41-8		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

#### Indication of danger:

Xn - Harmful

Xi - Irritant

Xn



Xi



## 16. OTHER INFORMATION

Preparation Date: 07/01/2015  
Revision date: 4/18/2019  
Prepared by: Sonia Owen

#### Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against

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**End of Safety Data Sheet**