

# Lithium Chloride

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Lithium Chloride
<b>Other Means of Identification</b>	LiCl, Lithium chloride anhydrous
<b>Product Code(s)</b>	LI3910
<b>Product Family</b>	Inorganic Solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	1275

## SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

### Classification

Acute toxicity (Oral) - Category 4; Skin irritation - Category 2; Eye irritation - Category 2; Specific target organ toxicity (single exposure) - Category 3

### Label Elements



Signal Word:

Warning

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

Precautionary Statement(s):

Prevention:

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear eye protection/face protection.

Wear protective gloves.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Storage:

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Store locked up.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Lithium chloride	7447-41-8	> 95	LiCl, Lithium chloride anhydrous	

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Remove source of exposure or move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

##### Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes. If skin irritation occurs, get medical advice or attention.

##### Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

##### Ingestion

Rinse mouth with water. Do not induce vomiting. Immediately call a Poison Centre or doctor.

##### First-aid Comments

Provide general supportive measures (comfort, warmth, rest).

Consult a doctor and/or the nearest Poison Control Centre for all exposures except under minor instances of inhalation or skin contact.

All first aid procedures should be periodically reviewed by a doctor familiar with the material and its conditions of use in the workplace. Some of the first-aid procedures recommended here require advanced first-aid training.

#### Most Important Symptoms and Effects, Acute and Delayed

None known.

#### Immediate Medical Attention and Special Treatment

##### Special Instructions

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

##### Unsuitable Extinguishing Media

None known.

#### Specific Hazards Arising from the Product

Does not burn. Heating increases the release of toxic vapour.

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In a fire, the following hazardous materials may be generated: corrosive hydrogen chloride; corrosive chlorine; Lithium oxide.

#### Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Move containers from fire area if it can be done without risk. Otherwise, use water in flooding quantities as a spray or fog to keep fire-exposed containers cool and absorb heat. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

It is good practice to prevent releases into the environment.

### Methods and Materials for Containment and Cleaning Up

Solids spills:

Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

Liquid spills: contain and soak up spill with absorbent that does not react with spilled product. (e.g. earth, sand). Place used absorbent into suitable, covered, labelled containers for disposal. Flush spill area.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid generating vapours or mists. Avoid generating dusts. Only use where there is adequate ventilation. Avoid release to the environment. Prevent accidental contact with incompatible chemicals. Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in the original, labelled, shipping container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Lithium chloride	Not established		Not established			

TLV Comments:

NOTE: In many jurisdictions, exposure limits are similar to the ACGIH TLVs. Since a TLV has not been established for this substance, appropriate government agencies in each jurisdiction should be consulted to determine which regulations apply.

### Appropriate Engineering Controls

The hazard potential of this product is relatively low. General ventilation is usually adequate. For large scale use of this product: use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use a corrosion-resistant exhaust ventilation system separate from other ventilation systems.

### Individual Protection Measures

#### Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

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### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

### Respiratory Protection

For non-routine or emergency situations: follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	White crystalline powder.
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	Neutral
<b>Melting Point/Freezing Point</b>	610 - 614 °C (1130 - 1137 °F) (melting); 610 - 614 °C (1130 - 1137 °F) (freezing)
<b>Initial Boiling Point/Range</b>	1360 - 1382 °C (2480 - 2520 °F)
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Will not burn.
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	~ 0 kPa (0 mm Hg)
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	2.07 at 25 °C
<b>Solubility</b>	Very soluble in water; Highly soluble in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	-0.46 (estimated)
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); Not applicable (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Molecular Weight</b>	42.39

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

### Conditions to Avoid

Generation of dust. Incompatible materials.

### Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong oxidizing agents (e.g. perchloric acid), water.

### Hazardous Decomposition Products

Corrosive hydrogen chloride; lithium oxide.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Lithium chloride	> 5.57 mg/L (rat) (4-hour exposure)	526 mg/kg (male rat)	1629 mg/kg (rabbit)

### Skin Corrosion/Irritation

Causes skin irritation.

### Serious Eye Damage/Irritation

Causes eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

May cause nose and throat irritation.

#### Ingestion

Harmful.

### Aspiration Hazard

No information was located.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

### Respiratory and/or Skin Sensitization

No information was located.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Lithium chloride	Not Listed	Not designated	Not Listed	Not Listed

### Reproductive Toxicity

#### Development of Offspring

Conclusions cannot be drawn from the limited studies available.

#### Sexual Function and Fertility

Conclusions cannot be drawn from the limited studies available.

#### Effects on or via Lactation

No information was located.

### Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Bury in a licensed landfill according to federal, provincial/state, and local regulations.

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## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

Listed on the DSL.

**USA**

**Toxic Substances Control Act (TSCA) Section 8(b)**

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Alphachem Limited

**Phone No.** (905)-821-2995

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**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

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