

## SAFETY DATA SHEET

Version 4.5  
Revision Date 07/31/2018  
Print Date 09/11/2019

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name : Lithium chloride

Product Number : 62476

Brand : Sigma

CAS-No. : 7447-41-8

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

#### 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Canada Co.  
2149 Winston Park Drive  
OAKVILLE ON L6H 6J8  
CANADA

Telephone : +1 9058299500

Fax : +1 9058299292

#### 1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

Precautionary statement(s)

P264

Wash skin thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P280

Wear protective gloves/ eye protection/ face protection.

P301 + P312 + P330

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Rinse mouth.

P302 + P352

IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338

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

|             |   |
|-------------|---|
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention.           |
| P337 + P313 | If eye irritation persists: Get medical advice/ attention.          |
| P362 + P364 | Take off contaminated clothing and wash it before reuse.            |
| P501        | Dispose of contents/ container to an approved waste disposal plant. |

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

|                     |   |                       |
|---------------------|---|-----------------------|
| Formula             | : | CILi                  |
| Molecular weight    | : | 42.39 g/mol           |
| CAS-No.             | : | 7447-41-8             |
| EC-No.              | : | 231-212-3             |
| Registration number | : | 01-2119560574-35-XXXX |

#### Hazardous components

| Component               | Classification   | Concentration* |
|-------------------------|--|----------------|
| <b>Lithium chloride</b> |  |                |
|                         | Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; H302, H315, H319 | 90 - 100 %     |
| * Weight percent        |  |                |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

No data available

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.  
For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

hygroscopic

Storage class (TRGS 510): 13: Non Combustible Solids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Control of environmental exposure**

Do not let product enter drains.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

- |   |   |
|---|---|
| a) Appearance                                   | Form: crystalline<br>Colour: white            |
| b) Odour  | No data available                             |
| c) Odour Threshold                              | No data available                             |
| d) pH   | 6   |
| e) Melting point/freezing point                 | Melting point/range: 605 °C (1,121 °F) - lit. |
| f) Initial boiling point and boiling range      | 1,360 °C (2,480 °F)                           |
| g) Flash point                                  | No data available                             |
| h) Evaporation rate                             | No data available                             |
| i) Flammability (solid, gas)                    | No data available                             |
| j) Upper/lower flammability or explosive limits | No data available                             |
| k) Vapour pressure                              | No data available                             |
| l) Vapour density                               | No data available                             |
| m) Relative density                             | 2.070 g/cm <sup>3</sup>                       |
| n) Water solubility                             | soluble                                       |
| o) Partition coefficient: n-octanol/water       | log Pow: -2.7                                 |
| p) Auto-ignition temperature                    | No data available                             |
| q) Decomposition temperature                    | No data available                             |
| r) Viscosity                                    | No data available                             |
| s) Explosive properties                         | No data available                             |
| t) Oxidizing properties                         | No data available                             |

### **9.2 Other safety information**

- |              |                       |
|--------------|-----------------------|
| Bulk density | 530 kg/m <sup>3</sup> |
|--------------|-----------------------|

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Exposure to moisture

### 10.5 Incompatible materials

Strong acids, Strong oxidizing agents, Bromine trifluoride

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Lithium oxides

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 526 mg/kg

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

#### Reproductive toxicity

No data available

No data available

#### Specific target organ toxicity - single exposure

No data available

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

## Additional Information

RTECS: OJ5950000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish                      static test EC50 - Oncorhynchus mykiss (rainbow trout) - 158 mg/l - 96 h  
(OECD Test Guideline 203)

Toxicity to daphnia and      EC50 - Daphnia magna (Water flea) - 249 mg/l  
other aquatic  
invertebrates

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

No data available

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

#### TDG (Canada)

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

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## 15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

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## 16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.                      Acute toxicity

|             |                                |
|-------------|--------------------------------|
| Eye Irrit.  | Eye irritation                 |
| H302        | Harmful if swallowed.          |
| H315        | Causes skin irritation.        |
| H319        | Causes serious eye irritation. |
| Skin Irrit. | Skin irritation                |

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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