

Safety Data Sheet LITHIUM CHLORIDE Anhydrous

SDS no. C307UK3Z • Version 1.0 • Date of issue: 2025-08-13

SECTION 1: Identification

GHS Product identifier

Product name LITHIUM CHLORIDE Anhydrous

Other means of identification

Product Product Code

Lithium Chloride Anhydrous AR LA036

Lithium Chloride Anhydrous LR LL036

Lithium Chloride Anhydrous TG LT036

Recommended use of the chemical and restrictions on use

Air conditioning, welding and soldering flux, dry batteries, desiccant, chemical production, heat-exchange media, salt baths, production of lithium metal, analytical reagent, soft drinks and mineral water to reduce escape of carbon dioxide and laboratory reagent.

Additional information: Not to be used as dietary salt substitute.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 4
- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2

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GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H302

H315

H319

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

Precautionary statement(s)

P280

P301+P312

P302+P352

P305+P351+P338

P332+P313

P337+P313

P362+P364

P501

Wear protective gloves/protective clothing/eye protection/face protection.

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

IF ON SKIN: Wash with plenty of water/soap

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

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	42.4
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Component	Identification	Weight %	Classifications
Lithium chloride	CAS no.: 7447-41-8 EC no.: 231-212-3	<= 100 %	CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Skin corrosion/irritation, Cat. 2; Eye damage/ irritation, Cat. 2A. HAZARDS: H302 - Harmful if swallowed; H315 - Causes skin irritation; H319 - Causes serious eye irritation.

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

In case of skin contact

Rinse with plenty of water. Get medical attention if irritation develops and persists.

In case of eye contact

If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse

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contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

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

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes of chlorine, hydrogen chloride gas, lithium oxides.

Material does not burn. Runoff may pollute waterways. Fire or heat may produce irritating, poisonous and/or corrosive fumes. Containers may explode when heated.

Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate unprotected personnel from danger area. In the event of spillage, use absorbent (soil, sand or inert medium) place into tightly closed containers. Adhere to personal protective measures. Flush the remainder with plenty of water. Label container and dispose of as hazardous waste.

Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Keep containers securely sealed and protected against physical damage.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

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The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	White, deliquescent crystals.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	614 °C (anhydrous substance)
Boiling point or initial boiling point and boiling range	1360 °C
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	~5.5 (50g/L, H ₂ O, 20 °C).
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (820 g/L @ 20 °C) Solubility in Organic Solvents: Very soluble in alcohols, ether, pyridine and nitrobenzene. Readily soluble in acetone and amyl alcohol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.068 @ 25 °C
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

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SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable. One of the most hygroscopic salts known.

Possibility of hazardous reactions

Reacts violently with bromine trifluoride.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Bromine trifluoride, strong acids, alkali metals, halogen-halogen compounds, strong oxidizing agents, moisture.

Hazardous decomposition products

May liberate toxic fumes of chlorine, hydrogen chloride gas, lithium oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 526 mg/kg (anhydrous substance)

Ingestion: Harmful if swallowed. May cause dizziness, drowsiness, ringing in the ears, impaired vision, visual disturbances, apathy, lack of appetite, loss of weight, anorexia, nausea, vomiting, diarrhea, polyuria, oliguria, tremors, cardiovascular failure, disturbed electrolyte balance, confusion, coma and death.

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation, coughing and dyspnoea.

Skin corrosion/irritation

Irritating to skin.

Serious eye damage/irritation

Irritating to eyes.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

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Aspiration hazard

Not classified based on available information.

Additional information

Chronic Effects: Prolonged absorption may cause disturbed electrolyte balance and impair kidney function.

SECTION 12: Ecological information

Toxicity

Acute Toxicity - Fish: LC50 (Onchorhynchus mykiss): 158mg/l/96h (anhydrous substance)

Acute Toxicity - Daphnia: EC50 (Daphnia magna): 249 mg/l/48h (anhydrous substance)

Persistence and degradability

Methods for the determination of biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

Distribution: log P(o/w): -2.7.

No bioaccumulation is to be expected (log P(o/w) <1).

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Sewage disposal

Distribution: log P(o/w): -2.7.

No bioaccumulation is to be expected (log P(o/w) <1).

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is

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Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)