

## Safety Data Sheet LITHIUM BROMIDE

SDS no. N6GJSRCD • Version 1.0 • Date of issue: 2024-11-13

### SECTION 1: Identification

#### GHS Product identifier

Product name LITHIUM BROMIDE

#### Other means of identification

Product Product Code

Lithium Bromide AR LA084

Lithium Bromide LR LL084

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

Pharmaceuticals, air conditioning, humectant, drying agent, batteries, low-temperature heat-exchange medium, medicine (sedative) and laboratory reagent.

#### 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](http://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

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- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Skin sensitizer, Cat. 1

### GHS label elements, including precautionary statements

#### Pictograms



#### Signal word

#### Warning

#### Hazard statement(s)

H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

#### Precautionary statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/phycsian if you feel unwell,
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash 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 facility

## SECTION 3: Composition/information on ingredients

#### Mixtures

Molecular weight: 86.85

#### Components

Component	CAS no.	Concentration
Lithium bromide (EC no.: 231-439-8)	7550-35-8	<= 100 % (weight)
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Serious eye damage/eye irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2; Skin sensitizer, Cat. 1. HAZARDS: H302 - Harmful if swallowed; H315 - Causes skin irritation; H317 - May cause an allergic skin reaction; 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.

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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 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.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Small fire: Use dry chemical, CO<sub>2</sub>, water spray or foam.

Large fire: Use water spray, fog or foam.

If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

### Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire (hydrogen bromide).

Material does not burn. Fire or heat may produce irritating, poisonous and/or corrosive gases. Runoff may pollute waterways.

### Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Wear protective clothing specified for normal operations (see Section 8)

### Methods and materials for containment and cleaning up

Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

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## SECTION 7: Handling and storage

### Precautions for safe handling

Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin, eyes and clothing. Wash hands and face thoroughly after working with material.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Store away from oxidizing agents. Keep containers closed at all times.

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## 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

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.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

#### 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

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Solid
Appearance	White, cubic, deliquescent crystals, or as a white to pinkish-white, granular powder.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	547 - 550 °C
Boiling point or initial boiling point and boiling range	1265 °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.

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pH  
Kinematic viscosity  
Solubility

pH 7 (10 % solution)  
No data available.  
Solubility in Water: Very soluble. Solubility in Organic Solvents: Very soluble in alcohol and ether. Soluble in methanol, acetone and glycol. Slightly soluble in pyridine.  
No data available.  
1 mm Hg @ 748 °C  
No data available.  
Specific Gravity: 3.46  
No data available.  
No data available.

Partition coefficient n-octanol/water (log value)  
Vapor pressure  
Evaporation rate  
Density and/or relative density  
Relative vapor density  
Particle characteristics

**Supplemental information regarding physical hazard classes**  
No data available.

**Further safety characteristics (supplemental)**  
Other Information: Taste: Sharp bitter taste.  
Forms double salts with CuBr<sub>2</sub>, HgBr<sub>2</sub>, HgI<sub>2</sub>, Hg(CN)<sub>2</sub> and SrBr<sub>2</sub>.  
Forms addition compounds with ammonia and amines.  
A hot concentrated solution dissolves cellulose.  
Greatly depresses vapour pressure over its solutions.

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## SECTION 10: Stability and reactivity

**Reactivity**  
Stable under normal conditions of storage and handling.

**Chemical stability**  
Stable under recommended storage conditions.

**Possibility of hazardous reactions**  
Hazardous Polymerization: Will not occur.

**Conditions to avoid**  
Avoid storing in direct sunlight and avoid extremes of temperature.

**Incompatible materials**  
Strong oxidisers and strong acids.

**Hazardous decomposition products**  
Hydrogen bromide, bromine and oxides of lithium.

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## SECTION 11: Toxicological information

**Information on toxicological effects**

**Acute toxicity**  
Acute Toxicity - Oral: LD50 (rat): 1800 mg/kg

Ingestion: Harmful if swallowed. May cause central nervous system depression and disturbed blood electrolyte balance. Large doses of lithium may cause dizziness, prostration, kidney damage, dehydration, weight loss, slurred speech, blurred vision, sensory loss, ataxia,

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tremors, convulsions, anorexia, vomiting and diarrhea. May produce depression, emaciation with severe cases resulting in psychosis and mental deterioration.

Inhalation: May cause irritation to the mucous membranes and upper respiratory tract with pain, burns and inflammation.

#### **Skin corrosion/irritation**

Contact may produce skin irritation, dehydration resulting in localised burns. Exposure to bromides may cause rashes, especially of the face (resembling acne) and boils.

#### **Serious eye damage/irritation**

Cause serious eye irritation.

#### **Respiratory or skin sensitization**

Respiratory sensitisation: Not classified based on available information.

Skin Sensitisation: Sensitization - Skin: Category 1

H317 May cause an allergic skin reaction.

#### **Germ cell mutagenicity**

Germ cell mutagenicity: Not classified based on available information.

#### **Carcinogenicity**

Not considered to be a carcinogenic hazard.

#### **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.

#### **Aspiration hazard**

Not classified based on available information.

#### **Additional information**

Chronic Effects: Chronic ingestion may cause ringing in ears, visual disturbances, depression, emaciation with severe cases resulting in psychosis and mental confusion. Absorption at large doses or chronic exposure may cause kidney damage, dizziness, skin effects and thyroid disturbances.

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## SECTION 12: Ecological information

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## 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.

#### **Other disposal recommendations**

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

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## **SECTION 14: Transport information**

### **ADG (Road and Rail)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

Not dangerous goods

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## **SECTION 15: Regulatory information**

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

#### **Australia SUSMP**

Poison Schedule: NS

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## **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 recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

### **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](https://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)