



# Material Safety Data Sheet

Printing date 09/04/2001, Rev 1: 30/04/2005, Rev 2: 24/06/2011, Rev 3: 30/04/2014

## 1 Identification of substance:

- Product details:
  - Trade name: Lithium Bromide anhydrous

Manufacturer/Supplier:

ICPH Australia  
8/c 443 Scarborough Beach Road  
Osborne Park  
West Australia 6017  
Emergency Phone: (618) 9244-9600  
Web Site: [www.icph.fr](http://www.icph.fr)

## 2 Composition/Data on components:

Chemical characterization:

Description: (CAS#)

Lithium Bromide (CAS# 7550-35-8), 99.5%

## 3 Hazards identification

- Hazard description:
- Xn Harmful
- Information pertaining to particular dangers for man and environment
  - R 22 Harmful if swallowed
  - R 36/37/38 Irritating to eyes, respiratory system and skin.

## 4 First aid measures

- After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

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- After skin contact  
Skin contact with the anhydrous compound may lead to burns as a result of substantial dehydration. Immediately wash with water and soap and rinse thoroughly.  
Seek medical advice if irritation occurs and persists.

- After eye contact

Rinse opened eye for at least 15 minutes with water. Then consult a doctor.

- After swallowing:  
Drink 1 or 2 glasses of water and induce vomiting by giving syrup of ipecac.  
Seek immediate medical advice.

The following symptoms may occur:

#### Acute Effects from overexposure

Lithium bromide has low oral and dermal toxicity. Large doses may cause central nervous system depression.

#### Chronic Effects from overexposure

Drowsiness, lack of coordination, ataxia, depression, psychoses and skin rashes.

## □ 5 Fire fighting measures

- Suitable extinguishing agents  
Product is not flammable. Extreme heat may cause fumes of bromine to be given off. Use fire-fighting measures that suit the surrounding fire.  
Protective equipment: Wear self-contained respirator and wear fully protective impervious suit.

## □ 6 Accidental release measures

- Person-related safety precautions:  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- Measures for environmental protection:  
Do not allow material to be released to the environment without proper governmental permits.
- Measures for cleaning/collecting:  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Additional information:  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## □ 7 Handling and storage

- Handling
- Information for safe handling:  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation at the workplace.

- Storage
- Requirements to be met by storerooms and receptacles:  
No special requirements.
- Information about storage in one common storage facility:  
Further information about storage conditions:  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.

## □ 8 Exposure controls and personal protection

- Additional information about design of technical systems:  
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.  
Components with limit values that require monitoring at the workplace:  
Not required.
- Additional information: No data
- Personal protective equipment
- General protective and hygienic measures  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Remove all soiled and contaminated clothing immediately.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- Breathing equipment:  
Use suitable respirator when high concentrations are present.
- Protection of hands: Impervious gloves
- Eye protection: Safety glasses
- Body protection: Protective work clothing.
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## □ 9 Physical and chemical properties:

- Form: Crystalline powder
- Colour: White to faintly beige granules or powder
- Odour: Odourless with bitter taste.
- Melting point/Melting range: 547°C
- Boiling point/Boiling range: 1265 C
- Sublimation temperature / start: Not determined
- Flash point: Not applicable
- Flammability (solid, gaseous)
- Contact with combustible material may cause fire.
- Ignition temperature: Not determined
- Decomposition temperature: Not determined
- Explosion limits:
- Lower: Not determined
- Upper: Not determined
- Vapour pressure: Not determined
- Density: Approximately 3.46

## □ 10 Stability and reactivity

- Anhydrous form is extremely hygroscopic.
- Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and stored according to specifications.
- Materials to be avoided:  
Strong Acids and Oxidisers
- Dangerous reactions: No dangerous reactions known.  
Dangerous products of decomposition: Bromine fumes.

## □ 11 Toxicological information -

- Primary irritant effect:
- On the skin: Irritant to skin and mucous membranes.
- Skin Absorption: Dermal LD<sub>50</sub> greater than 2000mg/kg(rat)
- Ingestion: Oral LD<sub>50</sub> greater than 500mg/kg (rat)
- On the eye: Irritating effect.
- Sensitisation: No sensitising effects known.
- Subacute to chronic toxicity:

Large amounts of lithium compounds may cause vomiting, diarrhea, ataxia, intestinal irritation, kidney injury, central nervous system depression and a drop in blood pressure. Central nervous system effects may include slurred speech, blurred vision, dizziness, sensory loss, convulsions and stupor.

Chronic intake may cause neuromuscular effects such as tremor, ataxia, weakness, clonus and hyperactive reflexes. Lithium can cause kidney damage, gastrointestinal disturbances, fatigue, dehydration, weight loss, dermatological effects and thyroid damage. Lithium ion has shown teratogenic effects in rats and mice.

- Subacute to chronic toxicity:

Boron affects the central nervous system. Boron poisoning causes depression of the circulation, persistent vomiting and diarrhea, followed by profound shock and coma. The temperature may become subnormal and a scarlatina form rash may cover the entire body.

Additional toxicological information:

Possible risk of impaired fertility.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

## □ 12 Ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits.

## □ 13 Disposal considerations

- Product: Lithium Bromide Anhydrous
- Recommendation  
Consult state, local or national regulations for proper disposal.
- Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

## □ 14 Transport information

Not a hazardous material for transportation.

- DOT regulations: None
- Land transport ADR/RID (cross-border) None
- Maritime transport IMDG: None
- Air transport ICAO-TI and IATA-DGR: None

Transport/Additional information:

Not dangerous according to the above specifications.

- Custom Tariff No: 28.27.59.00

## □ 15 Regulations

- Product related hazard information:
- Hazard symbols:  
Xn Harmful
- Risk phrases:  
22 Harmful if swallowed  
36/37/38 Irritating to eyes, respiratory system and skin.  
Safety phrases:  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
In case of insufficient ventilation, wear suitable respiratory equipment.
- 45 In case of accident or if you feel unwell, seek medical advice immediately.

- National regulations  
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory.  
Information about limitation of use:  
For use only by technically qualified individuals.

## □ 16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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