Lithium Bromide	Pricing >
Lithium Bromide Solution	Pricing >
Ultra Dry Lithium Bromide	Pricing >

Linear Formula	LiBr
Pubchem CID	82050
MDL Number	MFCD00011077
EC No.	231-439-8
IUPAC Name	lithium bromide
Beilstein/Reaxys No.	N/A
SMILES	[Li+].[Br-]
InchI Identifier	InChI=1S/BrH.Li/h1H;/q;+1/p-1
InchI Key	AMXOYNBUYSYVKV-UHFFFAOYSA-M

Signal Word	Warning
Hazard Statements	H315-H317-H319
Hazard Codes	Xi
Precautionary Statements	P261-P264-P280-P333+P313-P337+P313-P362+P364
Risk Codes	22
Safety Statements	N/A
RTECS Number	OJ5755000
Transport Information	NONH for all modes of transport
WGK Germany	3
GHS Pictograms	**GHS07 Exclamation Point** 

Create Printable PDF

SAFETY DATA SHEET

Date Accessed: 04/29/2024
Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #7550-35-8

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 4), H302
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Skin sensitisation (Category 1), H317
For the full text of the H-Statements mentioned in this Section, see Section 16.
GHS Label elements, including precautionary statements
Pictogram

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/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the
workplace.
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 soap

and 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.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P501 Dispose of contents/ container to an approved waste disposal
plant.
Hazards not otherwise classified (HNOC) or not covered by GHS - none

---

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Formula : BrLi
Molecular weight : 86.85 g/mol
CAS-No. : 7550-35-8
EC-No. : 231-439-8

SECTION 4. FIRST AID MEASURES

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.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are

described in the labelling (see section 2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
Hydrogen bromide gas, Lithium oxides
Hydrogen bromide gas, Lithium oxides
Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
Further information
No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

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.
Environmental precautions
Do not let product enter drains.
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.
Reference to other sections
For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing

occurs.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.
Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Hygroscopic. Keep in a dry place.
Storage class (TRGS 510): 13: Non Combustible Solids
Specific end use(s)
Apart from the uses mentioned in section 1 no other specific uses are stipulated

---

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Components with workplace control parameters
Contains no substances with occupational exposure limit values.
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
Face shield and safety glasses 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.
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
a) Appearance Form: powder
Colour: beige
b) Odour odourless
c) Odour Threshold No data available
d) pH 7.0 at 10 g/l at 20 °C (68 °F)
e) Melting point/freezing point Melting point/range: 547 °C (1017 °F)
f) Initial boiling point and boiling range 1,265 °C 2,309 °F
g) Flash point ()No data available
h) Evaporation rate No data available
i) Flammability (solid, gas)
The product is not flammable. - Test N.1: Test method for readily combustible solids
j) Upper/lower flammability or explosive limits No data available
k) Vapour pressure 1.0 hPa at 748 °C (1378 °F)
l) Vapour density No data available
m) Relative density 3.460 g/cm3 at 20 °C (68 °F)
n) Water solubility 1,490 g/l at 20 °C (68 °F)
o) Partition coefficient:
n-octanol/water
No data available
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
Other safety information
Bulk density 1.8 kg/m3

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
No data available

Conditions to avoid
Avoid moisture.
Incompatible materials
Strong acids
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Hydrogen bromide gas,
Lithium oxides
Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Hydrogen bromide gas,
Lithium oxides
In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
LD50 Oral - Mouse - 1,840 mg/kg
LC50 Inhalation - Rat - male and female - 4 h - > 15.57 mg/l
(OECD Test Guideline 403)
Inhalation: No data available
LD50 Dermal - Rat - male and female - > 2,000 mg/kg
(OECD Test Guideline 402)
No data available
Skin corrosion/irritation
Skin - Rabbit
Result: Irritating to skin. - 4 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Eye irritation
(OECD Test Guideline 405)
Respiratory or skin sensitisation
Buehler Test - Guinea pig
Result: positive
(OECD Test Guideline 406)
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.
NTP: No component of this product present at levels greater than or equal to 0.1% is
identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is
on OSHA’s list of regulated carcinogens.

Reproductive toxicity
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: Not available
Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion., Bromide rashes, especially of the face, and resembling acne and furunculosis, often occur when bromide inhalation or administration is prolonged., Acute symptoms of overexposure include:, depression, psychosis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Stomach - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 438 mg/l - 96 h
NOEC - Oncorhynchus mykiss (rainbow trout) - 128 mg/l - 96 h
Persistence and degradability
The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

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.

SECTION 14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components
Lithium bromide CAS-No.
7550-35-8
Revision Date
Lithium bromide CAS-No.
7550-35-8
Revision Date
New Jersey Right To Know Components
Lithium bromide CAS-No.

7550-35-8
Revision Date

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.