



<a href="#">Lithium Bromate</a>		<a href="#">Pricing &gt;</a>
Linear Formula	LiBrO <sub>3</sub>	
Pubchem CID	23673708	
MDL Number	N/A	
EC No.	236-925-3	
IUPAC Name	lithium bromate	
Beilstein/Reaxys No.	N/A	
SMILES	[Li+].[O-]Br(=O)=O	
Inchl Identifier	InChI=1S/BrHO3.Li/c2-1(3)4;/h(H,2,3,4);/q;+1/p-1	
Inchl Key	XWHZVOLSLQFSTN-UHFFFAOYSA-M	
Signal Word	Danger	
Hazard Statements	H272-H315-H319-H335	
Hazard Codes	O, Xi	
Precautionary Statements	P210-P220-P221-P305+P351+P338-P405-P501	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	UN 1450 5.1/PG II	
GHS Pictograms	<a href="#">GHS03 Oxidizer</a>  <a href="#">GHS07 Exclamation Point</a> 	

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## SAFETY DATA SHEET

Date Accessed: 03/28/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #13550-28-2

**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

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in  
accordance with 29 CFR 1910 (OSHA HCS)

GHS03 Flame over circle

Ox. Sol. 2

H272 May intensify fire; oxidizer.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Hazards not otherwise classified

No information known.

Label elements

GHS label elements

The product is classified and labeled in accordance  
with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS03 GHS07

Signal word

Danger

Hazard statements

H272 May intensify fire; oxidizer.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements

P221

Take any precaution to avoid mixing with  
combustibles.

P210

Keep away from heat/sparks/open flames/hot  
surfaces. No smoking.

P220

Keep/Store away from clothing/combustible materials.

P305+P351+P338 IF IN EYES: Rinse cautiously with  
water for several minutes. Remove contact lenses, if  
present and easy to do. Continue rinsing.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

C - Oxidizing materials

D2B - Toxic material causing other toxic effects

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 1

Flammability = 0

Physical Hazard = 2

Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical characterization: Substances

CAS# Description:

13550-28-2 Lithium bromate

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

After inhalation

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

Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing agents

Carbon dioxide, extinguishing powder or water spray.

Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Halocarbon extinguisher

Special hazards arising from the substance or mixture

This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

If this product is involved in a fire, the following can be released:

Lithium oxide

Hydrogen bromide (HBr)

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

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

Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Prevention of secondary hazards:

Acts as an oxidizing agent on organic materials such as wood, paper and fats

Keep away from combustible material.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

Handling

Precautions for safe handling

Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation at the workplace.  
Information about protection against explosions and fires:  
Substance/product can reduce the ignition temperature of flammable substances.  
This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.  
Conditions for safe storage, including any incompatibilities  
Storage  
Requirements to be met by storerooms and receptacles:  
No special requirements.  
Information about storage in one common storage facility:  
Store away from flammable substances.  
Store away from reducing agents.  
Do not store with organic materials.  
Store away from metal powders.  
Further information about storage conditions:  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Specific end use(s)  
No further relevant information available.

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## **SECTION 8. EXPOSURE CONTROLS/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.  
Control parameters  
Components with limit values that require monitoring at the workplace:  
Not required.  
Additional information:  
No data  
Exposure controls  
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.  
Maintain an ergonomically appropriate working

environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Penetration time of glove material (in minutes)

Not determined

Eye protection:

Safety glasses

Body protection:

Protective work clothing

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

Information on basic physical and chemical properties

General Information

Appearance:

Form: Crystalline

Odor: Not determined

Odor threshold: Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range: Not determined.

Boiling point/Boiling range: Not determined

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

Auto igniting: Not determined.

Danger of explosion: Not determined.

Explosion limits:

Lower: Not determined

Upper: Not determined

Vapor pressure: Not applicable.

Density: Not determined

Relative density

Not determined.

Vapor density

Not applicable.

Evaporation rate

Not applicable.

Solubility in / Miscibility with Water: Soluble

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not applicable.  
kinematic: Not applicable.  
Other information  
No further relevant information available.

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
May intensify fire; oxidizer.  
Chemical stability  
Stable under recommended storage conditions.  
Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and stored according to specifications.  
Possibility of hazardous reactions  
Reacts with reducing agents  
Reacts with flammable substances  
Conditions to avoid  
No further relevant information available.  
Incompatible materials:  
Reducing agents  
Flammable substances  
Organic materials  
Metal powders  
Hazardous decomposition products:  
Lithium oxide  
Hydrogen bromide

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
No effects known.  
LD/LC50 values that are relevant for classification:  
No data  
Skin irritation or corrosion:  
Causes skin irritation.  
Eye irritation or corrosion:  
Causes serious eye irritation.  
Sensitization:  
No sensitizing effects known.  
Germ cell mutagenicity:  
No effects known.  
Carcinogenicity:  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.  
Reproductive toxicity:  
No effects known.  
Specific target organ system toxicity - repeated

exposure:  
No effects known.  
Specific target organ system toxicity - single exposure:  
May cause respiratory irritation.  
Aspiration hazard:  
No effects known.  
Subacute to chronic toxicity:  
The toxicity of calcium compounds is generally due to the anion.  
Subacute to chronic toxicity:  
No effects known.  
Subacute to chronic toxicity:  
Exposure to bromates has been reported to cause central nervous system effects, blood effects with the formation of methemoglobin, kidney, ureter and bladder injury, diarrhea and respiratory depression.  
Additional toxicological information:  
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity  
Aquatic toxicity:  
No further relevant information available.  
Persistence and degradability  
No further relevant information available.  
Bioaccumulative potential  
No further relevant information available.  
Mobility in soil  
No further relevant information available.  
Additional ecological information:  
General notes:  
Do not allow material to be released to the environment without proper governmental permits.  
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.  
Avoid transfer into the environment.  
Results of PBT and vPvB assessment  
PBT:  
Not applicable.  
vPvB:  
Not applicable.  
Other adverse effects  
No further relevant information available.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods



Recommendation  
Consult state, local or national regulations to ensure proper disposal.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official regulations.  
Recommended cleansing agent:  
Water, if necessary with cleansing agents.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number  
DOT, IMDG, IATA  
UN1450  
UN proper shipping name  
DOT  
Bromates, inorganic, n.o.s.  
IMDG, IATA  
BROMATES, INORGANIC, N.O.S.  
Transport hazard class(es)  
DOT  
Class  
5.1 Oxidising substances.  
Label  
5.1  
Class  
5.1 (O2) Oxidizing substances  
Label  
5.1  
IMDG, IATA  
Class  
5.1 Oxidising substances.  
Label  
5.1  
Packing group  
DOT, IMDG, IATA  
II  
Environmental hazards:  
Not applicable.  
Special precautions for user  
Warning: Oxidizing substances  
Segregation groups  
Bromates  
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
Not applicable.  
Transport/Additional information:  
DOT  
Marine Pollutant (DOT):  
No  
UN "Model Regulation":  
UN1450, Bromates, inorganic, n.o.s. (Lithium

## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture

GHS label elements

The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms

GHS03

GHS07

Signal word

Danger

Hazard statements

H272 May intensify fire; oxidizer.

H315 Causes skin irritation.

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H335 May cause respiratory irritation.

Precautionary statements

P221

Take any precaution to avoid mixing with combustibles.

P210

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220

Keep/Store away from clothing/combustible materials.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity  
Substance is not listed.  
Prop 65 - Developmental toxicity, female  
Substance is not listed.  
Prop 65 - Developmental toxicity, male  
Substance is not listed.  
Information about limitation of use:  
For use only by technically qualified individuals.  
Other regulations, limitations and prohibitive  
regulations  
Substance of Very High Concern (SVHC) according to  
the REACH Regulations (EC) No. 1907/2006.  
Substance is not listed.  
The conditions of restrictions according to Article 67  
and Annex XVII of the Regulation (EC) No 1907/2006  
(REACH) for the manufacturing, placing on the market  
and use must be observed.  
Substance is not listed.  
Annex XIV of the REACH Regulations (requiring  
Authorisation for use)  
Substance is not listed.  
Chemical safety assessment:  
A Chemical Safety Assessment has not been carried  
out.

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## **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. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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