

Lanthanum Borate	Pricing >
Signal Word	N/A
Hazard Statements	N/A
Hazard Codes	N/A
Risk Codes	N/A
Safety Statements	N/A
Transport Information	NONH for all modes of transport

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SAFETY DATA SHEET

Date Accessed: 05/16/2024 **Date Revised:** 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #13709-95-0

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 Not a hazardous substance or mixture. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture. Hazards not otherwise classified (HNOC) or not

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Formula: LaBO3

Molecular weight: 197.71 g/mol

CAS-No.: 13709-95-0 EC-No.: 237-263-8

SECTION 4. FIRST AID MEASURES

Description of first-aid measures

If inhaled

If breathed in, move person into fresh air. If not

breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both 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 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 Borane/boron oxides

Lanthanum 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

Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

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

Advice on protection against fire and explosion Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

General industrial hygiene practice.

For precautions see section 2.2.

Conditions for safe storage, including any

incompatibilities

Storage conditions

Keep container tightly closed in a dry and wellventilated place.

Storage class

Storage class (TRGS 510): 11: Combustible Solids

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

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

Choose body protection in relation to its type, to the concentration and amount of

dangerous substances, and to the specific workplace., The type of protective

equipment must be selected according to the concentration and amount of the

dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of

dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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: solid
- b) Odor No data available
- c) Odor Threshold No data available
- d) pH No data available
- e) Melting

point/freezing point

Melting point/range: > 300 °C (> 572 °F)

f) Initial boiling point

and boiling range

No data available

- g) Flash point ()Not applicable
- h) Evaporation rate No data available
- i) Flammability (solid,

gas)

No data available

j) Upper/lower

flammability or

explosive limits

No data available

k) Vapor pressure No data available

I) Vapor density No data available

m) Density No data available

Relative density No data available

- n) Water solubility No data available
- o) Partition coefficient:

n-octanol/water

No data available

p) Autoignition

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

No data available

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

No data available

Incompatible materials

glass, Steel (all types and surface treatments),

Aluminum

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Oral: No data available

Inhalation: No data available Dermal: No data available Skin corrosion/irritation No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No ingredient 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

Toxicity reported for borates in humans: ingestion or absorption may cause nausea,

vomiting, diarrhea, abdominal cramps,

anderythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium,

convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams., To the best of our knowledge, the chemical, physical,

and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

No data available

Persistence and degradability

No data available

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

Endocrine disrupting properties

No data available 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.

Contaminated packaging

Dispose of as unused product

SECTION 14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

Further information

Not classified as dangerous in the meaning of transport regulations.

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

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts

Right to Know Act.

Pennsylvania Right To Know Components boron lanthanum(3+) trioxide CAS-No.

13709-95-0

Revision Date

New Jersey Right To Know Components boron lanthanum(3+) trioxide CAS-No.

13709-95-0
Revision Date
California Prop. 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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.

Reseach

- Microwave-assisted synthesis of Eu3+ doped lanthanum orthoborates, their characterizations and luminescent properties. Cansin Badan, Okan Esenturk, Ay?en Y?lmaz. Solid State Sciences, Volume 14, Issues 11–12, November 2012, Pages 1710-1716.
- Nonlinear optical studies of lead lanthanum borate glass doped with Au nanoparticles. R. Rajaramakrishna, Safakath Karuthedath, R. V. Anavekar, H. Jain. Journal of Non-Crystalline Solids, Volume 358, Issue 14, 15 July 2012, Pages 1667-1672.
- Preparation, friction and wear properties of hydrophobic lanthanum borate nanorods in rapeseed oil. Ke-cheng Gu, Bo-shui Chen, Xuemei Wang, Jiu Wang, Li-chuan Huang. Transactions of Nonferrous Metals Society of China, Volume 24, Issue 11, November 2014, Pages 3578-3584.
- Structure and nonlinear optical studies of Au nanoparticles embedded in lead lanthanum borate glass. R. Rajaramakrishna, Chatree Saiyasombat, R. V. Anavekar, H. Jain. Journal of Non-Crystalline Solids, Volume 406, 15 December 2014, Pages 107-110.
- Structure modeling of terbium doped strontium-lanthanum borate. A. Shyichuk, S. Lis, G. Meinrath. Journal of Rare Earths, Volume 32, Issue 3, March 2014, Pages 248-253.

- Key factors in Sr-doped LaBO3 (B=Co or Mn) perovskites for NO oxidation in efficient diesel exhaust purification. Jon A. Onrubia, B. Pereda-Ayo, U. De-La-Torre, Juan R. González-Velasco. Applied Catalysis B: Environmental, Volume 213, 15 September 2017, Pages 198-210.
- Synthesis, characterization, and dielectric properties of low loss LaBO3 ceramics. Xingyu Chen, Shuxin Bai, Ming Li, Weijun Zhang. Journal of the European Ceramic Society, Volume 33, Issues 15–16, December 2013, Pages 3001-3006.
- Ultraviolet and near-infrared luminescence of LaBO3:Ce3+,Yb3+.
 Heng-Wei Wei, Li-Ming Shao, Huan Jiao, Xi-Ping Jing. Optical Materials, Volume 75, January 2018, Pages 442-447.
- Novel LaBO3 hollow nanospheres of size 34±2nm templated by polymeric micelles. Manickam Sasidharan, Nanda Gunawardhana, Hom Nath Luitel, Toshiyuki Yokoi, Kenichi Nakashima. Journal of Colloid and Interface Science, Volume 370, Issue 1, 15 March 2012, Pages 51-57