

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Name:** Lithium Tetrakis(pentafluorophenyl)borate - Ethyl Ether Complex

**Product Number:** All applicable American Elements product codes, e.g. LI-OMX-01-155543

**CAS #:** 155543-02-5

**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:**

+1 800-424-9300

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## SECTION 2. HAZARDS IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Flammable Solids [Category 1]

Signal word: Danger!

Hazard Statement(s): Flammable solid

Pictogram(s) or Symbol(s):



**Precautionary Statement(s):**

[Prevention] Keep away from heat, sparks, open flames or other hot surfaces. - No smoking. Ground or bond container

and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and equipment. Wear protective gloves, eye protection and face protection.

[Response] In case of fire: Use dry chemical, CO<sub>2</sub>, sand, earth, water spray or regular foam to extinguish.

[Storage] None

[Disposal] None

Hazards not otherwise classified: [HNOC] May form explosive peroxides.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance

Components: Lithium Tetrakis(pentafluorophenyl)borate - Ethyl Ether Complex

Percent: >70.0%(T)

CAS Number: 155543-02-5

Chemical Formula: C<sub>24</sub>BF<sub>20</sub>Li·nC<sub>4</sub>H<sub>10</sub>O

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## SECTION 4. FIRST AID MEASURES

Inhalation: Call emergency medical service. Move victim to fresh air. Give artificial respiration if victim is not breathing.

Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin contact: Call a poison center or doctor if you feel unwell. In case of contact with substance, immediately flush skin

with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical

personnel are aware of the material(s) involved and take precautions to protect themselves.

Eye contact: In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye

irritation persists get medical advice/attention. Move victim to fresh air. Check for and remove any contact

lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take

precautions to protect themselves.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Loosen tight clothing such

as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will

not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and

supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms/effects:

Acute: No data available

Delayed: No data available

Immediate medical attention: If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the

injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

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## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical, CO<sub>2</sub>, sand, earth, water spray or regular foam Consult

with local fire authorities before attempting large scale fire fighting operations.  
Specific hazards arising from the chemical  
Hazardous combustion products: These products include: Carbon oxides Halogenated compounds  
Borates Metallic oxides  
Other specific hazards: WARNING: Highly toxic HF gas is produced during combustion.  
Special precautions for fire-fighters:  
May re-ignite after fire is extinguished. Runoff to sewer may create fire or explosion hazard.  
Containers may explode when heated. Move containers from fire area if you can do it without risk.  
Special protective equipment for fire-fighters:  
Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations  
ONLY; it may not be effective in spill situations.

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

Personal precautions: Use spark-proof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8).  
Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.  
Isolate the hazard area and deny entry to unnecessary and unprotected personnel.  
Personal protective equipment: Safety glasses. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).  
Emergency procedures: Prevent dust cloud. Eliminate all ignition sources (no smoking, flares, sparks or flames in the immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.  
Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.  
Methods and materials for containment and cleaning up:  
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.  
Environmental precautions:  
Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage.  
Prevent entry into sewers, basements or confined areas; dike if needed.

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

Precautions for safe handling: Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. DO NOT expose to friction or mechanical shock. Avoid formation of dust and aerosols. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all

equipment containing material. Take measures to prevent build up of electrostatic charge. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition. Conditions for safe storage: Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Hygroscopic material, store in a tightly sealed container. Storage incompatibilities: Store away from oxidizing agents

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure limits: No data available  
Appropriate engineering controls:  
Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.  
Personal protective equipment  
Respiratory protection: Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.  
Hand protection: Wear protective gloves.  
Eye protection: Safety glasses.  
Skin and body protection: Lab coat.

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

Melting point/freezing point: No data available  
Boiling point/range: No data available  
Decomposition temperature: No data available  
Relative density: No data available  
Kinematic Viscosity: No data available  
Partition coefficient: >3.1  
n-octanol/water (log Pow)  
Flash point: No data available  
Flammability (solid, gas): No data available  
  
pH: No data available  
Vapor pressure: No data available  
Vapor density: No data available  
Dynamic Viscosity: No data available  
Evaporation rate: No data available  
(Butyl Acetate = 1)  
Autoignition temperature: No data available  
Flammability or explosive limits: No data available

Lower: No data available

Upper: No data available

Solubility(ies):

Soluble: Methanol

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not Available.

Chemical Stability: Hygroscopic.

Possibility of Hazardous Reactions: No hazardous reactivity has been reported.

Conditions to avoid: Avoid excessive heat and light.

Incompatible materials: Oxidizing agents

Hazardous Decomposition Products: No data available

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## SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

No data available

Skin corrosion/irritation:

No data available

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

IARC: No data available NTP: No data available OSHA: No data available

Reproductive toxicity:

No data available

Routes of Exposure: Inhalation, Eye contact, Ingestion.

Symptoms related to exposure:

No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.

Potential Health Effects:

No specific information available; skin and eye contact may result in irritation. May be harmful if inhaled or ingested.

Target organ(s): No data available

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## SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Fish: No data available

Crustacea: No data available

Algae: No data available

Persistence and degradability: No data available

Bioaccumulative potential (BCF): No data available  
Mobility in soil: No data available  
Partition coefficient:  
n-octanol/water (log Pow)  
>3.1  
Soil adsorption (Koc): No data available  
Henry's Law:  
constant (PaM<sup>3</sup>/mol)  
No data available

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## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.  
Disposal of container: Dispose of as unused product. Do not re-use empty containers.  
Other considerations: Observe all federal, state and local regulations when disposing of the substance.

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## SECTION 14. TRANSPORT INFORMATION

DOT (US)  
UN number:  
UN3175  
Proper Shipping Name:  
Solids containing flammable liquid, n.o.s.  
Class or Division:  
4.1 Flammable solid  
Packing Group:  
II  
IATA  
UN number:  
UN3175  
Proper Shipping Name:  
Solids containing flammable liquid, n.o.s.  
Class or Division:  
4.1 Flammable solid  
Packing Group:  
II  
IMDG  
UN number:

UN3175  
Proper Shipping Name:  
Solids containing flammable liquid, n.o.s.  
Class or Division:  
4.1 Flammable solid  
Packing Group:  
II  
EmS number: F-A, S-I

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## SECTION 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity:

SARA 313: Not Listed

SARA 302: Not Listed

State Regulations

State Right-to-Know

Massachusetts Not Listed

New Jersey Not Listed

Pennsylvania Not Listed

California Proposition 65: Not Listed

Other Information

Other Information

NFPA Rating:

Health: 2

Flammability: 3

Instability: 2

HMIS Classification:

Health: 2

Flammability: 3

Physical: 2

International Inventories

WHMIS hazard class: B4: Flammable Solid.

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## SECTION 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

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