

Specification Sheet

Chemical Name		CAS No.
Lithium bis(oxalatoborate)		244761-29-3
Testing Parameters	Testing Method	Specification
Appearance	Visual Inspection	White powder free of impurities
Purity (wt%)	GC	≥99.9
Acidity (HF, ppm)	Titration	≤100
Trace Metal Content	ICP-OES	≤100



Safety Data Sheet (SDS)**Lithium Bis(oxalato)borate (LiBOB)****SECTION 1: IDENTIFICATION****Product Name:** Lithium Bis(oxalato)borate**Synonyms:** LiBOB**CAS Number:** 244761-29-3**Recommended Use:** Electrolyte component in lithium-ion batteries**Supplier:** Automat Solutions, Inc.**Emergency Contact:** (510) 982-6488**SECTION 2: HAZARD IDENTIFICATION****GHS Classification:**

- Acute Toxicity (Oral) – Category 4
- Skin Corrosion/Irritation – Category 2
- Serious Eye Damage/Irritation – Category 2A
- Specific Target Organ Toxicity (Single Exposure) – Category 3
- Aquatic Toxicity (Chronic) – Category 3

Signal Word: Warning**Hazard Statements:**

- Harmful if swallowed.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause respiratory irritation.
- Harmful to aquatic life with long-lasting effects.

Precautionary Statements:

- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Wash hands thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not eat, drink, or smoke when using this product.



- If swallowed: Rinse mouth. Seek immediate medical attention.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Lithium Bis(oxalato)borate

CAS Number: 244761-29-3

% Composition: 98-100%

SECTION 4: FIRST AID MEASURES

Inhalation: Remove person to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Immediately wash with soap and water. Seek medical attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Rinse mouth. Seek immediate medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media: Use CO₂, dry chemical, or foam. Avoid using water.

Hazardous Combustion Products: Carbon oxides, boron oxides, lithium oxides.

Special Protective Equipment: Wear self-contained breathing apparatus and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear PPE including gloves, goggles, and a respirator.

Environmental Precautions: Avoid release to the environment. Prevent from entering waterways.

Cleanup Methods: Sweep up and place in a properly labeled container. Avoid creating dust. Dispose of per local regulations.

SECTION 7: HANDLING AND STORAGE

Handling: Handle in a well-ventilated area. Avoid contact with skin and eyes. Avoid inhalation.

Storage: Store in a dry, cool, well-ventilated place away from moisture and incompatible materials. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use local exhaust ventilation or a fume hood.

Personal Protective Equipment (PPE):

- **Respiratory Protection:** Use NIOSH-approved respirator if airborne concentrations exceed limits.
- **Hand Protection:** Chemical-resistant gloves.



- **Eye Protection:** Safety goggles or face shield.
- **Skin Protection:** Protective clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White crystalline powder

Odor: Odorless

Melting Point: 289-300°C (552-572°F)

Solubility: Slightly soluble in water, soluble in organic solvents

Boiling Point: Decomposes before boiling

Density: 1.48 g/cm³

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Incompatible Materials: Strong bases, strong oxidizers, moisture.

Hazardous Decomposition Products: Carbon oxides, boron oxides, lithium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Exposure: Inhalation, skin contact, eye contact, ingestion.

Symptoms: Irritation, nausea, difficulty breathing.

Chronic Effects: Prolonged exposure may cause organ damage.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Harmful to aquatic organisms with long-lasting effects.

Persistence & Degradability: Not readily biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations. Do not release into the environment.

SECTION 14: TRANSPORT INFORMATION

UN Number: UN3077

Hazard Class: 9 (Miscellaneous Hazardous Substances)

Packing Group: III

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Lithium Bis(oxalato)borate)

SECTION 15: REGULATORY INFORMATION

TSCA Status: Listed

SARA 311/312 Hazards: Acute health hazard



SECTION 16: OTHER INFORMATION

Revision Date: February 2025

Disclaimer: The information provided in this SDS is believed to be accurate but is not guaranteed to be exhaustive. Users should conduct their own assessments for specific applications.

