

SECTION 1 Identification of Substance/ Preparation and Company/ Undertaking

Product Name: AccuSPEC – Lithium Borates / Lithium Iodide, Anhydrous, Fused; Pure, 99.98+%

Formula: Lithium Tetraborate / Lithium Metaborate / Lithium Iodide
 $\text{Li}_2\text{B}_4\text{O}_7/\text{LiBO}_2/\text{LiI}$ (66.67/32.83/0.50)

Chemical Family: Borates (Lithium Borates)

Catalogue Number: 040-060-268

Manufacturer/ Supplier:

Canada/ International

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 Baie d'Urfé, (Montreal)
 Québec, H9X 4B6
 Canada

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USA

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 USA

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Germany

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 Straße 14, 87616
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In the event of a transport emergency, call Chemtrec (24 h): 1-703-527-3887
 In the event of medical emergency, call your local poison centre or equivalent.

SECTION 2 Hazards Identification

Emergency Overview

GHS

Harmonized Classification – Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

Classification: Skin Irritation- Category 2
 Eye Irritation- Category 2A
 Specific Target Organ Toxicity-
 Single Exposure- Category 3

Pictograms:



Signal Word: Warning

Hazard Statements

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May Cause respiratory irritation.

Precautionary Statements

P261: Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P310: Immediately call a POISON CENTER or doctor/physician.

P405: Store locked up.

P501: Dispose of contents/container according to federal, regional and local government requirements.

SECTION 3 Composition and Information on Ingredients

| CAS No. | Chemical Name | Percent | EC No. |
|----------------|----------------------|----------------|---------------|
| 12007-60-2 | Lithium Tetraborate | 66.67% | 235-514-3 |
| 13453-69-5 | Lithium Metaborate | 32.83% | 236-631-5 |
| 10377-51-2 | Lithium Iodide | 0.50% | 233-822-5 |

SECTION 4 First Aid Measures

In case of contact:

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, holding the eyelids open. Neutral saline may be used as soon as it is available. Do NOT interrupt flushing. If irritation persists, repeat flushing. Get medical aid immediately.

Skin: Immediately flush skin with plenty of water for at least 30 minutes while removing contaminated clothing and shoes. Do NOT interrupt flushing. Get medical aid immediately.

Ingestion: For a precaution: Never give anything by mouth to an unconscious person. If victim is conscious and alert, rinse mouth with 2-4 cupfuls of water. Do NOT induce vomiting. Get medical aid immediately.

Inhalation: Take proper precautions to ensure your own safety before attempting rescue (e.g., wear appropriate protective equipment). If breathing, move person into fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid immediately.

Notes to Physician/Doctor: Treat symptomatically and supportively.

SECTION 5 Fire-fighting Measures

Fire Hazard Summary:

Product is not flammable or combustible.

Extinguishing Media: Whichever is most appropriate for the surrounding fire. Use flooding quantities of water spray, dry chemicals, carbon dioxide or fog.

Extinguishing Media to be Avoided: ---.

Combustion and Thermal Decomposition Products: Borate/ boron oxides, lithium oxides.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION

Health: 2 – Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.

Flammability: 0

Reactivity: 0

Special Hazard:

SECTION 6 Accidental Release Measures

Spill Precautions:

Personal precautions: Use personal protective equipment.

Ensure adequate ventilation. Evacuate personnel to safe areas.

Clean-up:

SMALL SPILLS: Soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Flush area with large quantities of water. Contaminated absorbent material will pose the same hazards as the spilled product.

LARGE SPILLS: Evacuate area. Contact fire and emergency services and supplier for advice.

SECTION 7 Handling and Storage

Handling:

Use only with adequate ventilation and/or personal protective equipment. Wash thoroughly after using. Avoid contact with skin and eyes. Avoid generating vapors or mists.

Storage:

Store in a tightly closed container in a cool, well ventilated and dry area. Store away from incompatible materials, heated areas, sparks, and flames.

Additional Information:

The mixture is intended for use in a laboratory. The mixture as supplied is stable under normal laboratory conditions.

SECTION 8 Exposure Controls and Personal Protection

EXPOSURE GUIDELINES**Preventive Measures:**

Eye / Face protection: Use safety glasses with side shields. Eye-wash station in proximity. Avoid contact with skin and eyes.

Skin protection: Wear suitable clothing and gloves. Refer to OSHA's protection regulations in 29 CFR 1910.133 or European Standard EN166.

Inhalation / Ventilation: Use in a chemical fume hood.

Personal Hygiene: Do not eat or drink in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Appropriate Engineering Controls: Use laboratory fumehoods in case of insufficient ventilation.

SECTION 9 Physical and Chemical Properties

| | | | |
|------------------------|------------------|--------------------------------|---------------|
| Form: | powder | Melting/Freezing Point: | c. 880 °C |
| Color: | white | Boiling Point: | Not Available |
| Odor: | Not Available | | |
| Odor Threshold: | Not Available | pH: | Not Available |
| Solubility: | soluble in water | Density: (@ 20 °C) | c. 1.4 g/ml |
| Vapor Density: | Not Available | Viscosity: (@ 20 °C) | Not Available |

SECTION 10 Stability and Reactivity

Chemical stability: Stable at room temperature and conditions of use.

Incompatible Materials: Potassium, acid anhydrides.

Conditions to avoid: High temperatures.

Hazardous Decomposition Products: Borate/ boron oxides, lithium oxides.
Hazardous Polymerization: None reported.

SECTION 11 Toxicological Information

Potential Health Effects

Eye: Causes eye irritation.
Skin: May be harmful if absorbed through the skin. Causes skin irritation.
Ingestion: May be harmful if ingested.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Effects of Short-Term (Acute) Exposure

LD50/LC50: Not Available.

Effects of Long-Term (Chronic) Exposure

Respiratory or skin sensitization: No information found.
Germ Cell Mutagenicity: No component of this product at levels greater than 0.1% is classified as a mutagen.
Reproductive Toxicity: No component of this product at levels greater than 0.1% is classified for reproductive toxicity.
STOT- Single exposure: Causes severe skin and eye irritation.
STOT- Repeated exposure: No information found.
Aspiration Hazard: No information found.
Carcinogenicity: Not listed as a carcinogen by NTP, or CA Prop 65.

Component of this preparation listed in the National Toxicology Program ARC (12th Report on carcinogens): None.

Component of this preparation appearing in the list (June 22, 2012) of chemicals known to the state of California to cause cancer or reproductive toxicity (California Proposition 65): None.

Sign and Symptoms of Exposure

Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematous 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.

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.

SECTION 12 Ecological Information

Eco- toxicity: no information about this preparation is available.

Mobility in soil: no information about this preparation is available.

Persistence and degradability: no information about this preparation is available.

Bioaccumulative potential: no information about this preparation is available.

SECTION 13 Disposal Considerations

Product disposal:

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, run off and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements. Contact a licensed professional waste disposal service to dispose of this material.

Review federal, provincial and local government requirements prior to disposal. Store material for disposal as indicated in Storage Conditions.

Contaminated packaging: Dispose of as unused product.

SECTION 14 Transport Information

IDMG (sea): Not Regulated As A Hazardous Material Or Dangerous Goods For Transportation By This Agency.

ADR/DOT (road): Not Regulated As A Hazardous Material Or Dangerous Goods For Transportation By This Agency.

ICAO/IATA (air): Not Regulated As A Hazardous Material Or Dangerous Goods For Transportation By This Agency.

SECTION 15 Regulatory Information

US Federal:

TSCA ---

US State:

California Prop. 65 See Section 11.

Canada

WHMIS Classifications: Not Regulated

EU

Classifications: Not Regulated

Risk Phrase(s): Not Regulated

Safety Phrase(s): Not Regulated

SECTION 16 Other Information

Revised: March 08, 2018

Date of previous revision (s): **Not Applicable**

Details of revision (s): **Not Applicable**

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