

Emergency Phone Number (24 hours) CHEMTREC (800-424-9300)
Outside US: 703-527-3887

SECTION 1
CHEMICAL IDENTIFICATION OF THE
SUBSTANCE/PREPARATION

NAME: Borate Fusion Flux- Mixture containing 66.67% Lithium Tetraborate, 32.83% Lithium Metaborate and 0.5% Lithium Bromide.
CHEMICAL FAMILY: Chemical Compounds
COMMON NAME OR SYNONYMS: none
SPEX CERTIPREP CATALOG NUMBER: FF-0644-60, FF-0645-60

Manufacturer/Supplier
SPEX CERTIPREP
203 Norcross Avenue
Metuchen, NJ 08840

SPEX CERTIPREP LTD
2 Dalston Gardens
Stanmore, Middlesex HA7 1BQ
England
Tel: (0) 20 8204 6656

SECTION 2
COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	%	TLV UNITS	CAS #	EINECS
Li ₂ B ₄ O ₇	~66.76	Data not available	[12007-60-2]	
LiBO ₂	~32.83	Data not available	[13453-69-5]	
LiBr	~0.5	Data not available	[7550-35-8]	

SECTION 3
HAZARDS IDENTIFICATION

None identified. May be irritating to eyes, mucous membranes on contact.

SECTION 4
FIRST AID MEASURES

General: Remove contaminated clothing, wash thoroughly before reuse.
Eyes: Flush with water for at least 15 minutes occasionally lifting upper and lower eyelids. *Skin:* Remove contaminated clothing and flush with water thoroughly. *Inhalation:* Move to fresh air. Consult doctor if symptoms persist. *Ingestion:* If large amounts were swallowed, get immediate medical help. If the patient is conscious, give large quantities of water.

SECTION 5
FIRE FIGHTING MEASURES

Flash Point: Not applicable.
Extinguishing media: Appropriate to surrounding fire conditions.
Special Hazards and Procedure: None identified.
Protective Equipment: Wear appropriate to surrounding fire conditions.

SECTION 6
ACCIDENTAL RELEASE MEASURES

Ventilate area. Wear appropriate protective equipment. Contain and recover when possible. Collect and put into a sealed container for proper disposal. Avoid raising dust. Wash spill site with water after material pick up is complete. Wear respirator, chemical resistant glasses, gloves and clothing.

SECTION 7
HANDLING & STORAGE

Ensure good ventilation/exhaustion at work place. Have an immediate availability of an eye wash in case of emergency. Store at room temperature. Keep the container tightly closed.. Use good Laboratory Practice when working with any chemical whether it is considered hazardous or not. Refer to section 8.

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SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Wear goggles, protective apron and chemical resistant gloves. Use respirator if dust is raised when using this.

SECTION 9

PHYSICAL & CHEMICAL PROPERTIES

Form:	Powder
Molecular Weight:	Not Applicable
Appearance & odor:	White crystals
Specific Gravity:	Lithium Metaborate: 1.397
pH:	N/A
Melting point:	Lithium Metaborate: 846 C (lower of two)
Boiling Point:	N/A
Solubility in water:	Cold – 2.5 g/100 cc
Danger of Explosion:	Not explosive
Self-ignitability:	Not self igniting

SECTION 10

STABILITY & REACTIVITY

Stability: Stable under normal storage and use.
Hazardous Decomposition Products: No information
Hazardous Polymerization: Will not occur
Incompatibility: No information.
Conditions to Avoid: No information.

SECTION 11

TOXICOLOGICAL INFORMATION

May irritate skin. Taken orally, Lithium salts can cause nausea, vomiting and abdominal pain. Central nervous system effects including slurred speech, blurred vision, dizziness, sensory loss, convulsions and stupor have been reported. Chronically, lithium effects the central nervous system, kidneys, gastrointestinal tract and causes dermatological reactions. May cause fatigue, weight loss and thyroid disturbance. Signs of lithium poisoning are anorexia, general weakness, dehydration and dryness of the mouth.

TOXICITY DATA

No Information available

SECTION 12

ECOLOGICAL INFORMATION

No information is found on environmental toxicity for this.

SECTION 13

DISPOSAL CONSIDERATIONS

Contact local Hazardous or Chemical waste disposal agency for regulations.

SECTION 14

TRANSPORT INFORMATION

Air & Ground: Not regulated



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SECTION 16
OTHER INFORMATION

SECTION 15
REGULATORY INFORMATION

USA:

Listed in EPA TSCA Inventory

WHMIS Classification (Canada): Not Regulated

EC Guidelines:

Safety Phrases:

- 36/37 - Wear suitable protective clothing, and gloves,
- 26 - in case of contact with eyes, rinse immediately with plenty of water and seek medical attention.
- 45 - in case of accident or if you feel unwell, seek medical advice immediately.

References: NIOSH/OSHA, Occupational Health Guideline for Nitric Acid, (Sept.1978)

The Sigma/Aldrich Library of Chemical Safety Data, Ed.I, (1985)
Registry of Toxic Effects of Chemical Substances, 1981-82
Patty's Industrial Hygiene and Toxicology, 3rd Revised Edition, Vol. 2A, 1981
Threshold Limit Values and Biological Exposure Indices for 1988-89, ACGIH
Dangerous properties of Industrial Materials by N.Irving Sax and Richard J. Lewis, Sr.(Ninth Edition) *

SECTION 16
OTHER INFORMATION

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