

化 学 品 安 全 技 术 说 明 书

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MSDS标题

LITHIUM FLUOROBORATE MSDS报告

产品标题

氟硼酸锂

CAS号

14283-07-9

化学品及企业标识

PRODUCT NAME

LITHIUM FLUOROBORATE

NFPA

Flammability	0
Toxicity	3
Body Contact	3
Reactivity	1
Chronic	2
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4	

PRODUCT USE

Reagent for the cleavage of silyl ethers. Also used in the mild high- yield hydrolysis of acetals and ketals, the addition of arenesulfonyl chlorides to olefines and the electrooxidative C- C cleavage of cyclohexanones.

SYNONYMS

B-F4-Li, LiBF₄, "lithium tetrafluoroborate", "lithium fluoborate", "lithium tetrafluoborate"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Causes burns.

Risk of serious damage to eyes.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Fluoride causes severe loss of calcium in the blood, with symptoms appearing several hours later including painful and rigid muscle contractions of the limbs. Cardiovascular collapse can occur and may cause death with increased heart rate and other heart rhythm irregularities. The brain and kidneys may be affected. Other toxic effects include headache, increased saliva output, jerking of the eyeball and dilated pupils, lethargy, stupor, coma and rarely, convulsions. Lithium, in large doses, can cause dizziness and weakness. If a low salt diet is in place, kidney damage can result. There may be dehydration, weight loss, skin effects and thyroid disturbances. Central nervous system effects include slurred speech, blurred vision, numbness, inco-ordination and convulsions. Repeated exposure can cause diarrhea, vomiting, tremor, muscle jerks and very brisk reflexes.

EYE

The material can produce chemical burns to the eye following direct contact. Vapors or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.

SKIN

The material can produce chemical burns following direct contact with the skin. Solution of material in moisture on the skin, or perspiration, may markedly increase skin corrosion and accelerate tissue destruction. Open cuts, abraded or irritated skin should not be exposed to this material.

INHALED

Inhalation may produce serious health damage*. If inhaled, this material can irritate the throat and lungs of some persons. Acute effects of fluoride inhalation include irritation of nose and throat, coughing and chest discomfort. A single acute over-exposure may even cause nose bleed. Pre-existing respiratory conditions such as emphysema, bronchitis may be aggravated by exposure. Occupational asthma may result from exposure.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Fluoborates accumulate in the thyroid gland, preventing the uptake of iodine. Chronic exposure to boron trifluoride can increase levels of bone fluoride and cause dental fluorosis. Lithium compounds can affect the nervous system and muscle. This can cause tremor, inco-ordination, spastic jerks and very brisk reflexes. They may cause birth defects and should not be used when pregnancy is suspected. They are effective in treating manic episodes of bipolar disorder. Restricting sodium in the diet increases the risks of taking lithium.