

化学品安全技术说明书

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MSDS标题

LITHIUM NIOBATE(V) MSDS报告

产品标题

铌酸锂晶体; 铌酸锂LN

CAS号

12031-63-9

化学品及企业标识

PRODUCT NAME

LITHIUM NIOBATE(V)

NFPA

Flammability	0
Toxicity	2
Body Contact	2
Reactivity	1
Chronic	2

SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PRODUCT USE

Infrared detectors; transducers in laser technology.

SYNONYMS

LiNBO₃, "lithium methaniobate", "lithium niobium oxide", "lithium niobium trioxide"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern. 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

There is some evidence to suggest that this material can cause eye irritation and damage in some persons. External application of niobium compounds can cause severe skin irritation and some eye irritation with an increase in blinking rate and redness.

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material. Niobium compounds cause severe damage to the skin, including swelling and irritation with poor healing. Ulcers may develop, especially where damage has previously occurred.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. 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. Niobium can cause scarring of the lungs and damage the epithelium of the bronchi.