

**1 Identification****Product identifier****Trade name:** Lithium metaborate Claisse Flux**CAS Number:**

13453-69-5

**EC number:**

236-631-5

**Application of the substance / the mixture:**

Laboratory chemicals

Professional use only

**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Alpha Resources LLC

Address: 3090 Johnson Rd. Stevensville, MI, USA

Telephone: (269) 465-5559

Website: [www.alpharesources.com](http://www.alpharesources.com)Email: [info@alpharesources.com](mailto:info@alpharesources.com)**Emergency telephone number:**

CHEMTREC: 1-800-424-9300

**2 Hazard(s) identification****Classification of the substance or mixture**

Acute Toxicity - Oral 4 H302 Harmful if swallowed.

Eye Damage 1 H318 Causes serious eye damage.

Toxic to Reproduction 2 H361 Suspected of damaging fertility or the unborn child.

**Label elements****GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**

GHS05 GHS07 GHS08

**Signal word** Danger**Hazard-determining components of labeling:**

lithium metaborate

**Hazard statements**

Harmful if swallowed.

Causes serious eye damage.

Suspected of damaging fertility or the unborn child.

**Precautionary statements:**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

**Trade name:** Lithium metaborate Claisse Flux

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:****NFPA ratings (scale 0 - 4)****HMIS-ratings (scale 0 - 4)**

HEALTH	*3	Health = *3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**Other hazards****PBT:** Not applicable.**vPvB:** Not applicable.**3 Composition/information on ingredients****Chemical characterization: Substances****CAS No. Description**

13453-69-5 lithium metaborate

**Identification number(s)****EC number:** 236-631-5**4 First-aid measures****Description of first aid measures****General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After inhalation:** Move patient to fresh air, if symptom arise consult a doctor.**After skin contact:**Remove/ Take off immediately all contaminated clothing.  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:**Call for a doctor immediately.  
Rinse out mouth and then drink plenty of water.**Most important symptoms and effects, both acute and delayed**Ingestion:Nausea  
Vomiting  
Diarrhea**Indication of any immediate medical attention and special treatment needed**Wear the appropriate personal protective equipment according to the incident, injury and surroundings.  
Treat symptomatically.  
Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Trade name:** Lithium metaborate Claisse Flux

**5 Fire-fighting measures**

**Extinguishing media**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

**Special hazards arising from the substance or mixture** No further relevant information available.

**Advice for firefighters**

**Protective equipment:**

Wear fully protective suit.

Wear self-contained respiratory protective device.

**6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Avoid contact with spilled material.

Observe the relevant local and international regulations.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

**Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

Do not empty into drains or the aquatic environment.

**Methods and material for containment and cleaning up:**

Use neutralizing agent.

Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

Dispose contaminated material as waste according to section 13.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**Protective Action Criteria for Chemicals**

<b>PAC-1:</b>	
	6 mg/m <sup>3</sup>
<b>PAC-2:</b>	
	77 mg/m <sup>3</sup>
<b>PAC-3:</b>	
	460 mg/m <sup>3</sup>

**7 Handling and storage**

**Precautions for safe handling**

Thorough dedusting.

Open and handle receptacle with care.

Provide suction extractors if dust is formed.

Avoid breathing vapours.

Avoid close or long term contact with the skin.

Wear personal protective equipment when handling.

**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

**Trade name:** Lithium metaborate Claisse Flux

### Conditions for safe storage, including any incompatibilities

**Requirements to be met by storerooms and receptacles:**

Keep container tightly closed.  
Store in a dry, cool and well-ventilated area.  
Do not store in unlabelled containers.  
Store only in the original receptacle.

**Information about storage in one common storage facility:** Store away from foodstuffs.

**Further information about storage conditions:**

Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.  
Store in cool, dry conditions in well sealed receptacles.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:** Not required.

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

#### Personal protective equipment

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.  
Ensure good ventilation/exhaustion at the workplace.

**Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.

#### Protection of hands:



Protective gloves

The glove material must be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### Eye protection:



Tightly sealed goggles

**Body protection:** Protective work clothing

**Trade name:** Lithium metaborate Claisse Flux**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:****Form:** Crystalline powder**Color:** White**Odor threshold:** Not determined.**pH-value:** Not applicable.**Melting point/Melting range:** 845 °C (1,553 °F)**Boiling point/Boiling range:** Not determined.  
The substance is a solid which melts above 300°C**Flash point:** Not applicable.  
Substance is inorganic**Flammability (solid, gaseous):** Product is not flammable.**Auto-ignition temperature:** Not determined.**Decomposition temperature:** Not determined.**Danger of explosion:** Product does not present an explosion hazard.  
Not determined.**Explosion limits:****Lower:** Not determined.**Upper:** Not determined.**Oxidizing properties** Not determined.**Vapor pressure:** Not determined.  
Melting point is above 300 °C**Vapor pressure:****Density at 20 °C (68 °F):** 2.18 g/cm<sup>3</sup> (18.1921 lbs/gal) (CRC Handbook)**Relative density** Not determined.**Vapor density** Not applicable.**Evaporation rate** Not applicable.**Solubility in / Miscibility with****Water at 20 °C (68 °F):** 141.2 g/l (read-across)  
Very soluble.**Partition coefficient (n-octanol/water):** Not determined.  
Substance is inorganic**Viscosity:****Dynamic:** Not applicable.**Kinematic:** Not applicable.**VOC content:** 0.00 %**Solids content:** 100.0 %**Other information**

No further relevant information available.

**10 Stability and reactivity****Reactivity** No further relevant information available.

**Trade name:** Lithium metaborate Claisse Flux

**Chemical stability**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** Avoid all sources of ignition: heat, sparks, open flames.

**Incompatible materials:**

Avoid strong acids and bases.

Oxidizing agents.

Reducing agents.

**Hazardous decomposition products:**

Formation of toxic gases (fumes) is possible during heating or in case fire.

**11 Toxicological information**

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

**13453-69-5 lithium metaborate**

Oral	LD50	500 mg/kg (Rat) (read-across dilithium tetraborate (OECD 423))
------	------	--

**Primary irritant effect:**

**on the skin:**

No irritant effect.

Not corrosive

Read-across with dilithium tetraborate (OECD 431, 439)

**on the eye:**

Strong irritant with the danger of severe eye injury.

Read-across with dilithium tetraborate (OECD 405)

**Sensitization:**

No sensitizing effects known.

Read-across with analogous substances.

**Other information (about experimental toxicology):**

**Toxicokinetics, metabolism and distribution**

A toxicokinetics assessment was performed using the available data for dilithium tetraborate. Lithium metaborate is sufficiently similar in terms of physicochemical properties and behaviour upon absorption that

the same absorption factors can be used.

Bioaccumulation potential: no bioaccumulation potential

Absorption rate - oral (%): 100

Absorption rate - dermal (%): 0.5

Absorption rate - inhalation (%): 100

**Additional toxicological information:**

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>
Substance is not listed.

<b>NTP (National Toxicology Program)</b>
Substance is not listed.

<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
Substance is not listed.

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

Read-across with dilithium tetraborate (OECD 473, 490)

**Trade name:** Lithium metaborate Claisse Flux

**Reproductive toxicity**

Repr.2

Read-across with dilithium tetraborate (OECD 422)

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:**

**13453-69-5 lithium metaborate**

EC50/48h >100 mg/L (Daphnia Magna) (read-across dilithium tetraborate (OECD 202))

EC50 100 mg/L (algae) (read-across dilithium tetraborate (OECD 201))

NOEC 32 mg/L (algae) (read-across dilithium tetraborate (OECD 201))

**Persistence and degradability** No further relevant information available.

**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

**Additional ecological information**

**General notes:**

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods**

**Recommendation:**

Disposal must be made in accordance with official regulations.

Do not allow product to reach sewage system.

**Uncleaned packagings:**

**Recommendation:**

Disposal must be made according to official regulations.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

**UN-Number**

DOT, ADR, IMDG, IATA

Not applicable.

**UN proper shipping name**

DOT, ADR, IMDG, IATA

Not applicable.

**Transport hazard class(es)**

DOT, ADR, ADN, IMDG, IATA

Class

Not applicable.

**Packing group**

DOT, ADR, IMDG, IATA

Not applicable.

**Environmental hazards:**

Not applicable.

**Trade name:** Lithium metaborate Claisse Flux

**Special precautions for user** Not applicable.

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

**15 Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

**Sara**

<b>Section 355 (extremely hazardous substances):</b>
Substance is not listed.

<b>Section 313 (Specific toxic chemical listings):</b>
Substance is not listed.

<b>Hazardous Air Pollutants</b>
Substance is not listed.

**Proposition 65**

<b>Chemicals known to cause cancer:</b>
Substance is not listed.

<b>Chemicals known to cause reproductive toxicity for females:</b>
Substance is not listed.

<b>Chemicals known to cause reproductive toxicity for males:</b>
Substance is not listed.

<b>Chemicals known to cause developmental toxicity:</b>
Substance is not listed.

**Carcinogenic categories**

<b>EPA (Environmental Protection Agency)</b>
I (oral)

<b>TLV (Threshold Limit Value)</b>
Substance is not listed.

<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
Substance is not listed.

**GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS05 GHS07 GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

lithium metaborate

**Hazard statements**

Harmful if swallowed.  
Causes serious eye damage.  
Suspected of damaging fertility or the unborn child.

**Precautionary statements**

Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.



**Trade name:** Lithium metaborate Claisse Flux

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Contact:** info@alpharesources.com

**Date of preparation / last revision** 03/08/2024

### Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Toxic to Reproduction 2: Reproductive toxicity – Category 2