

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bis(trifluoromethane)sulfonimide lithium salt
Product Number: S2336

Sarchem Laboratories, Inc.
5012 Industrial Road
Farmingdale, NJ 07727

Emergency Phone No: 800-255-3924
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ChemTel Inc Contract No. MIS0009049

2. HAZARDS INFORMATION:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Specific target organ toxicity - repeated exposure, Oral (Category 2), Nervous system, H373
Short-term (acute) aquatic hazard (Category 3), H402
Long-term (chronic) aquatic hazard (Category 3), H412
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements Pictogram Signal word

Warning

Emergency Overview

Pictogram



Signal word Danger

Hazard statement(s)

H301 + H311 Toxic if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

- P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
Rinse mouth.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
- P305 + P351 + P338 + P310 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.
- P314 Get medical advice/ attention if you feel unwell.
- P362 Take off contaminated clothing and wash before reuse.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS</u>	<u>EC:NO</u>	<u>Molecular Weight</u>
lithium bis(trifluoromethylsulfonyl)imide	90076-65-6	415-300-0	287.09 g/mol

Classification: Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; STOT RE 2; Aquatic Acute 3; Aquatic Chronic 3; H301, H311, H314, H318, H373, H402, H412

Concentration: < 100%

Synonyms: Bis(trifluoromethylsulfonyl)aminelithium salt, Lithium bistrifluoromethanesulfonimidate
 Formula: C2F6LiNO4S2

4. FIRST AID MEASURES:

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing

Special Hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Sulfur oxides

Hydrogen fluoride

Lithium oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system

6. Accidental Release Measures

Personal precautions

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

Environmental precautions

Do not discharge into drains or rivers

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts

7. Handling and Storage

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Handle and store under inert gas. Moisture sensitive.

Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials.

8. Exposure Controls / Personal Protection

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance

Form	powder
Color	white

Safety data

pH	7.0 - 9.5 at 10 g/l
Melting Point	Melting point/range: 234 - 238 °C (453 - 460 °F) - lit.
Boiling Point	no data available
Flash Point	no data available
Ignition temperature	no data available
Lower exposure limit	no data available
Upper exposure limit	no data available
Vapor pressure	< 0.000001 hPa at 25 °C (77 °F) - Regulation (EC) No. 440/2008, Annex, A.4
Water solubility	no data available
Autoignition Temp	> 420 °C (> 788 °F) - Regulation (EC) No. 440/2008, Annex, A.16

10. Stability and Reactivity

Storage stability

Stable under recommended storage conditions.

Incompatible materials

Strong oxidizing agents

Conditions to Avoid

Avoid moisture.

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

11. Toxicological Information

Acute toxicity

LD50 Oral - Rat - female - 210 mg/kg

(OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - 400 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns. - 4 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irreversible effects on the eye

(OECD Test Guideline 405)

Germ cell mutagenicity

Test Type: Ames test

Test system: *S. typhimurium*

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

Oral - May cause damage to organs through prolonged or repeated exposure. - Central nervous system, Peripheral nervous system

Additional information

Repeated dose toxicity - Rat - male and female - Oral - 29 d - NOAEL (No observed adverse effect level) - 15 mg/kg

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

Toxicity

Toxicity to fish

semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - 88.4 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - *Daphnia magna* (Water flea) - 14 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - *Desmodesmus subspicatus* (green algae) – 178 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - activated sludge - > 1,000 mg/l - 3 h

(OECD Test Guideline 209)

Ecotoxicity effects

No data available

Further information on ecology

No data available

13. Disposal Considerations

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transportation Information

DOT (US)

UN number: 2923 Class: 8 (6.1) Packing group: II

Proper shipping name: Corrosive solids, toxic, n.o.s. (lithium bis(trifluoromethylsulfonyl)imide)

Poison Inhalation Hazard: No

IMDG

UN number: 2923 Class: 8 (6.1) Packing group: II

Proper shipping name: Corrosive solids, toxic, n.o.s. (lithium bis(trifluoromethylsulfonyl)imide)

IATA

UN number: 2923 Class: 8 (6.1) Packing group: II

Proper shipping name: Corrosive solids, toxic, n.o.s. (lithium bis(trifluoromethylsulfonyl)imide)

15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

New Jersey Right To Know Components

lithium bis(trifluoromethylsulfonyl)imide

CAS 90076-65-6

16. OTHER INFORMATION:

Further Information

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