

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 18.06.2023

Version number 9 (replaces version 8)

Revision: 30.01.2023

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Trade name:** lithium bis(trifluoromethylsulfonyl)imide

**Article number:** S001

**CAS Number:**  
90076-65-6

**CE Number:**  
415-300-0

**Index number:**  
616-124-00-9

**1.2 Relevant identified uses of the substance or mixture and uses advised against** No other important information available.

- **Sector of Use** SU24 Scientific research and development

- **Product category** PC21 Laboratory chemicals

**Application of the substance / the mixture** This product is intended for the exclusive use of Research and Development.

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Solvionic SA

11 chemin des Silos

31100 TOULOUSE

FRANCE

☎ : +33 (0)32.26.20.20

✉: contact@solvionic.com

**Further information obtainable from:** Department of Regulatory affairs

**1.4 Emergency telephone number:**

- United Kingdom: Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust, +44 20 7188 7188.

- Ireland: National Poisons Information Centre Beaumont Hospital, +353 1 809 2566 (Healthcare professionals 24/7), +353 1 809 2166 (public, 8am - 10pm, 7/7).

- France ORFILA (INRS): +33 (0)1.45.42.59.59.

- Belgique, Belgie/Belgium: Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid

Rue Bruyn 1 - 1120 Bruxelles/Brussel. Toutes les questions urgentes concernant une intoxication: 070 245 245 (gratuit, 24/7), si pas accessible 02 264 96 30 (tarif normal). Alle dringende vragen over vergiftigingen: 070 245 245 (gratis, 24/7), of indien onbereikbaar tel. 02 264 96 30 (normaal tarief).

- Sverige/ Sweden: Giftinformationscentralen Box 60 500 : 112 – begär Giftinformation ,+46 10 456 6700 (Från utlandet)

- Ελλάδα / Greece: Poisons Information Centre Children's Hospital P&A Kyriakou, +30 21 07 79 37 77.

- Italia/Italy: Centro Antiveleni di Roma CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Università Cattolica del Sacro Cuore, +39 06 305 4343.

- España/ Spain: Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Madrid, +34 91 562 04 20 (solo emergencias toxicológicas), Información en español (24h/365 días).

- Nederland/ Netherlands (NVIC): Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen, +31 (0)88 755 8000.

- Norge/ Norway: Giftinformasjonen: +47 22 59 13 00.

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

STOT RE 2 H373 May cause damage to the central nervous system and the peripheral nervous system through prolonged or repeated exposure. Route of exposure: Oral.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008** The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms**



GHS05

GHS06

GHS08

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**Trade name:** lithium bis(trifluoromethylsulfonyl)imide

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**Signal word** Danger**Hazard statements**

H301+H311 Toxic if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

H373 May cause damage to the central nervous system and the peripheral nervous system through prolonged or repeated exposure.  
Route of exposure: Oral.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

**3.1 Substances****- CAS No. / Description**

CAS: 90076-65-6 lithium bis(trifluoromethylsulfonyl)imide; 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide lithium salt

**- Identification number(s)****CE Number:** 415-300-0**Index number:** 616-124-00-9**Molecular formula:** C<sub>2</sub> H F<sub>6</sub> N O<sub>4</sub> S<sub>2</sub> Li**Molar mass:** 287,09 g/mol

### SECTION 4: First aid measures

**4.1 Description of first aid measures****- General information:**

Immediately remove any clothing soiled by the product.

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

Artificial respiration in the case of irregular breathing or respiratory arrest.

. **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.. **After skin contact:** Immediately wash with water and soap and rinse thoroughly.. **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.. **After swallowing:**

Do not induce vomiting, seek urgent medical attention.

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media**. **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters**. **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Use individual protective gear.

**6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

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### 6.3 Methods and material for containment and cleaning up:

Use neutralising agent.  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.

### 6.4 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.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** Thorough dedusting.

**Information about fire - and explosion protection:** No special measures required.

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.

**Maximum storage temperature:** Store at room temperature, not exceeding 35°C.

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**- Ingredients with limit values that require monitoring at the workplace:**

**CAS: 90076-65-6 lithium bis(trifluoromethylsulfonyl)imide**

OEEL (Sweden)	Short-term value: 0,02 mg/m <sup>3</sup> som Li; inhalerbar fraktion
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**Additional information:** The lists valid during the making were used as basis.

### 8.2 Exposure controls

**Appropriate engineering controls** No further data; see section 7.

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Hand protection**



Protective gloves

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

**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.

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

Chloroprene rubber (Neopren)

**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/face protection**



Tightly sealed goggles

**Body protection:** Use protective suit.

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Trade name: **lithium bis(trifluoromethylsulfonyl)imide**

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### - General Information

Physical state	Solid
Color:	White
. Odor:	Not determined.
. Odor threshold:	Not determined.
. Melting point/freezing point:	233 °C
Boiling point or initial boiling point and boiling range	Undetermined.
Flammability	Product is not flammable.
Lower and upper explosion limit	
. Lower:	Not determined.
. Upper:	Not determined.
- Flash point:	Not applicable.
. Decomposition temperature:	Not determined.
pH	8,02
. at 25°C:	
- Viscosity:	
Kinematic viscosity	Not applicable.
Viscosity at 25 °C (77 °F)	
. Dynamic:	Not applicable.
Solubility	
. water:	Not determined.
Partition coefficient n-octanol/water (log value)	Not determined.
- Vapour pressure:	Not applicable.
Density and/or relative density	
- Density at 20 °C:	2,15 g/cm <sup>3</sup>
. Relative density	Not determined.
. Vapour density	Not applicable.
Particle characteristics	
See section 3.	

#### 9.2 Other information

. Appearance:	
Form:	Crystalline powder
Important information on protection of health and environment, and on safety.	
- Auto-ignition temperature:	Not determined.
- Explosive properties:	Product does not present an explosion hazard.
- Change in condition	
. Evaporation rate	Not applicable.

#### Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

### SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

#### 10.2 Chemical stability

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

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

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** Strong oxidizer and strong acid and base.

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**10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** Toxic if swallowed or in contact with skin.

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

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)

 . **Skin corrosion/irritation** Causes severe skin burns and eye damage.

 . **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

 - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

 . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

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

 - **Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

 - **Specific target organ toxicity - repeated exposure**

May cause damage to the central nervous system and the peripheral nervous system through prolonged or repeated exposure. Route of exposure: Oral.

 - **Aspiration hazard** Based on available data, the classification criteria are not met.

#### 11.2 Information on other hazards

**Endocrine disrupting properties** Substance is not listed.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

#### 12.2 Persistence and degradability

 No further relevant information available.

#### 12.3 Bioaccumulative potential

 No further relevant information available.

#### 12.4 Mobility in soil

 No further relevant information available.

#### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

#### 12.6 Endocrine disrupting properties

 The product does not contain substances with endocrine disrupting properties.

#### 12.7 Other adverse effects

**Remark:** Harmful to fish

**Additional ecological information:**
**General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even extremely small quantities leak into the ground.

Harmful to aquatic organisms

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue**

HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP8	Corrosive
HP14	Ecotoxic

**Uncleaned packaging:**

 . **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

ADR/RID/ADN, IMDG, IATA

UN2923

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**Trade name: lithium bis(trifluoromethylsulfonyl)imide**

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**14.2 UN proper shipping name**

ADR/RID/ADN

UN2923 CORROSIVE SOLID, TOXIC, N.O.S. (lithium bis(trifluoromethylsulfonyl)imide)

IMDG, IATA

CORROSIVE SOLID, TOXIC, N.O.S. (lithium bis(trifluoromethylsulfonyl)imide)

**14.3 Transport hazard class(es)**

ADR/RID/ADN


**Class**  
**Label**  
**IMDG**

 8  
 8+6.1

**Class**  
**Label**  
**IATA**

 8  
 8/6.1

**Class**  
**Label**

 8  
 8 (6.1)
**14.4 Packing group**

ADR/RID/ADN, IMDG, IATA

II

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Hazard identification number (Kemler code):

Warning: Corrosive substances.

EMS Number:

86

Stowage Category

F-A,S-B

Stowage Code

B

SW2 Clear of living quarters.

**14.7 Maritime transport in bulk according to IMO instruments** Not applicable.**Transport/Additional information:**

ADR/RID/ADN

Limited quantities (LQ)

1 kg

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

Transport category

2

Tunnel restriction code

E

IMDG

Limited quantities (LQ)

1 kg

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

UN "Model Regulation":

UN 2923 CORROSIVE SOLID, TOXIC, N.O.S. (LITHIUM BIS(TRIFLUOROMETHYLSULFONYL)IMIDE), 8 (6.1), II

## SECTION 15: Regulatory information

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

Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS05

GHS06

GHS08

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**Signal word** Danger**Hazard statements**

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H314 Causes severe skin burns and eye damage.

H373 May cause damage to the central nervous system and the peripheral nervous system through prolonged or repeated exposure.  
Route of exposure: Oral.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Directive 2012/18/EU****Named dangerous substances - ANNEX I** Substance is not listed.**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

**REGULATION (EU) 2019/1148****Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

Substance is not listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.**Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

Substance is not listed.

**15.2 Chemical safety assessment:**

For this product, no chemical safety assessment has been performed.

A Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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.

For research and development use only.

**Department issuing SDS:** Regulatory affairs department**Contact:**

Email: hse@solvionic.com

Phone number: +33 (0)5.34.63.35.35

**Date of previous version:** 20.07.2022**Version number of previous version:** 8**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 (Código Marítimo Internacional de Mercancías Peligrosas).

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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### Annex: Exposure scenario

**Short title of the exposure scenario**

**Sector of Use** SU24 Scientific research and development

**Product category** PC21 Laboratory chemicals

**Description of the activities / processes covered in the Exposure Scenario** See section 1 of the annex to the Safety Data Sheet.

**Conditions of use**

**Duration and frequency** 5 workdays/week.

**Physical parameters**

**Physical state** Solid

**Concentration of the substance in the mixture** Raw material.

**Used amount per time or activity** Smaller than 100 g per application.

**Other operational conditions**

**Other operational conditions affecting environmental exposure** No special measures required.

**Other operational conditions affecting worker exposure**

Avoid contact with eyes.

Avoid contact with the skin.

**Other operational conditions affecting consumer exposure** No special measures required.

**Other operational conditions affecting consumer exposure during the use of the product** Not applicable.

**Risk management measures**

**Worker protection**

**Organisational protective measures** No special measures required.

**Technical protective measures** Ensure that suitable extractors are available on processing machines

**Personal protective measures**

Do not inhale dust / smoke / mist.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

Protective gloves

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

**Measures for consumer protection** Ensure adequate labelling.

**Environmental protection measures**

**Water** Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

**Disposal measures** Ensure that waste is collected and contained.

**Disposal procedures** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Waste type** Partially emptied and uncleaned packaging

**Exposure estimation**

**Consumer** Not relevant for this Exposure Scenario.

**Guidance for downstream users** No further relevant information available.