Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 5/8/2026 Version: 4

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name	Lithium bis(fluorosulfonyl)imide
Product code	KI-0059
CAS	171611-11-3
EC-Number	686-526-7
REACH No.	A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Supplier	IoLiTec Ionic Liquids Technologies GmbH Im Zukunftspark 9 D – 74076 Heilbronn Germany
Telephone	+49 (0)7131-89839-0
Fax	+49 (0)7131-89839-109
Email	msds@iolitec.de

1.4 Emergency telephone number

Emergency telephone	+49 (0)151-41255671

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2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULTATION (EC) No 1272/2008)

Acute Toxicity, Category 4

Skin irritation, Category 2

Eye damage, Category 1

Reproductive toxicity, Category 2

Specific target organ toxicity - repeated exposure (Category 2): Liver, haematopoietic + hepatobiliary, spleen

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Pictograms:



Signal word: **Danger**

H-phrases

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

P-phrases

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312:	IF SWALLOEWD: Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/ physician.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.

Reduced Labelling (<125 mL) (REGULATION (EC) No 1272/2008 Art. 29)

Pictograms:



Signal word: **Danger**

H-phrases

H318	Causes serious eye damage.

H341	Suspected of causing genetic defects

P-phrases

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/ physician.
P405	Store locked up.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated

regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Lithium bis(fluorosulfonyl)imide

CAS: 171611-11-3

EC-Number : 686-526-7

Ingredient name	Contents	Classification
Lithium bis(fluorosulfonyl)imide	>99%	Ac. Tox. 4; Skin Irrit. 2; Eye Dam. 1, Muta. 2, STOT RE 2

4 FIRST AID MEASURES

4.1 Description of first aid measures

General

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation

Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Seek medical advice.

Ingestion

Immediately rinse mouth and provide fresh air. Do not induce vomiting. Seek medical advice.

Skin

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Seek medical advice.

Eyes

Promptly wash eyes with plenty of water while lifting the eye lids. Remove contact lenses if present and easy to do. Continue to rinse for at least 15 minutes. Seek

immediate medical advice. Continue to rinse.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5 FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use: Water spray, fog or mist. Carbon dioxides (CO_2). Dry chemicals, sand, dolomite etc.

5.2. Special hazards arising from the substance or mixture

Avoid water in straight hose stream, will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control. Fire causes formation of toxic gases.

5.3. Advice for firefighters

Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing and avoid inhalation of vapor, skin or eye contact.

6.2 Environmental precautions

Avoid washing into water courses. Avoid contaminating public drains or water supply.

6.3 Methods and materials for containment and cleaning up

Avoid contact with skin or inhalation of spillage, dust or vapor. Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

6.4 Reference to other sections

For disposal see section 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, sparks and open flame. Do not use in confined spaces without adequate ventilation and/or respirator.

7.2 Conditions for safe storage, including any incompatibilities

Store at moderate temperatures in dry, well-ventilated area. Moisture sensitive. Store under inert gas. Heat sensitive. Chemical storage. Store locked up.

Storage class (TRGS 510): LGK 8B

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters.

8.2 Exposure controls

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Solid, powder
b) Color	Colorless
c) Odor/taste	no characteristic odor
d) Melting point/freezing point	no data available
e) Initial boiling point	no data available
f) Flammability	no data available
g) Upper/lower explosive limits	not relevant
h) Flash point	not relevant
i) Autoignition temperature	not relevant
j) Decomposition temperature	no data available
k) pH	not relevant
l) Viscosity, kinematic	not relevant
m) Water solubility	soluble
n) Partition coefficient	no data available

o)	**Vapor pressure**	no data available
p)	**Density**	no data available
q)	**Relative vapor density**	not relevant
r)	**Particle characteristics**	no data available
s)	**Explosive properties**	not relevant
t)	**Oxidizing properties**	not relevant

9.2 Other safety information

No data available.

10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

No particular stability concerns.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Avoid contact to strong oxidizers. Avoid acid conditions.

10.5 Incompatible materials

Strong oxidizing agents, acids.

10.6 Hazardous decomposition products

High temperatures generate: nitrogen oxides (NO_x), Sulphur oxides (SO_x), Hydrogen fluoride (HF), Lithium oxides.

11 TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes

Acute toxicity

Harmful if swallowed.

May be harmful in contact with skin.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

Suspected of causing genetic defects.

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.

Reproductive toxicity

No data available.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure: Liver, haematopoietic + hepatobiliary, spleen

Aspiration hazard

No data available.

Potential health effects

Inhalation

no data available

Ingestion

Harmful if swallowed.

Skin

May be harmful in contact with skin. Causes skin irritation.

Eyes

Causes serious eye damage.

Signs and Symptoms of Exposure

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

11.2 Information on other hazards

Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU)2018/605 at levels of 0.1% or higher.

RTECS: Not available

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Not classified.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated

regulation (EU) 2017/2100 or Commission Regulation (EU)2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Contact specialist disposal companies. Dispose of in accordance with Local Authority requirements. Recover and reclaim or recycle, if practical. Do not dispose in communal waste water.

14 TRANSPORT INFORMATION

14.1 UN number

No dangerous goods for shipping purpose.

14.2 UN proper shipping name

No dangerous goods for shipping purpose.

14.3 Transport hazard class(es)

No dangerous goods for shipping purpose.

14.4 Packaging group

No dangerous goods for shipping purpose.

14.5 Environmental hazards

No dangerous goods for shipping purpose.

14.6 Special precautions for user

No data available

15 REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

No data available.

Country specific information

Germany WGK: 1 (Self-Classification)

16 OTHER INFORMATION

DISCLAIMER

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