

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

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
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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute Toxicity, Category 4

Skin corrosion/irritation, Category 2,

Eye damage, Category 1

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Pictograms:

Signal word: Danger

H-phrases

H302	Harmful if swallowed.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H341	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

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 or mist.
P264	Wash skin thoroughly after handling.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection .
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P321	Specific treatment (see supplemental first aid instructions on this label).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Lithium bis(fluorosulfonyl)imide

CAS: 171611-11-3

Ingredient name	Contents	Classification
Lithium bis(fluorosulfonyl)imide	>99%	Ac. Tox. 4; Skin Corr. 2; Eye Dam. 1

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 immediate medical advice.

Ingestion

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

Skin

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

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 (CO₂). 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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

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.

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

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

Appearance	Solid, powder.
Color	White.
Odor/taste	no data available

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.

10.6 Hazardous decomposition products

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NO_x), Sulphur oxides (SO_x), Hydrogen fluoride (HF), Lithium oxides.

11 TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes

Acute toxicity

No data available.

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

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

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

11.2 Information on other hazards

Potential health effects

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

Inhalation

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion

Toxic if swallowed. Causes burns.

Skin

Toxic if absorbed through skin. Causes skin burns.

Eyes

Causes eye burns.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: Not available.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

12.6 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.

14 TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3261

IMDG: 3261

IATA: 3261

14.2 UN proper shipping name

ADR/RID: Corrosive solid, acidic, organic, n.o.s. (Lithium bis(fluorosulfonyl)imide)

IMDG: Corrosive solid, acidic, organic, n.o.s. (Lithium bis(fluorosulfonyl)imide)

IATA: Corrosive solid, acidic, organic, n.o.s. (Lithium bis(fluorosulfonyl)imide)

14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lithium bis(fluorosulfonyl)imide

Revision Date: 8/24/2023

Date Issued: 11/9/2023

Version: 3

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: 3

(Self-Classification)

16 OTHER INFORMATION

DISCLAIMER

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPOSED TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. IOLITEC SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

IN NO WAY SHALL IOLITEC BE LIABLE FOR ANY CLAIMS, LOSSES OR DAMAGES OF ANY THIRD PARTY OR FOR THE LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.