

## Safety data sheet

Issue Date: 2022-10-09

According to GB/T 16483、GB/T 17519

Version:1.0

SDS Record Number: Synvent-001

### Lithium bis(fluorosulfonyl) imide

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

##### 1.1 Product identifier

Product Name: Lithium bis(fluorosulfonyl) imide

Product Code: 1516

CAS No. : 171611-11-3

##### 1.2 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Synvent Materials Corporation

Address: 13-03C Block A,Hengfeng Building,No.335 Yingbin Road,Guangrao County

Dongying City,Shandong,China

Zip: 257300

Tel: 0546-2169970

Fax: 0546-2169970

E-mail: weipukonggu@synventgroup.com

##### 1.3 Emergency telephone number

Tel: 0546-2169111

##### 1.4 Relevant identified uses of the substance or mixture and uses advised against

Recommended uses: For R&amp;D purposes only.

Uses advised against: Not for pharmaceutical, domestic or other purposes.

#### SECTION 2: Hazards identification

##### Emergency overview

*Harmful if swallowed.May be harmful in contact with skin.Causes skin irritation.Causes serious eye damage.Suspected of causing genetic defects.*

**2.1 Classification of the substance or mixture**

- H302 Acute toxicity, oral. Category 4  
 H311 Acute toxicity , dermal. Category 5  
 H315 Skin Corrosion/ Irritation. Category 2  
 H318 Serious eye damage/eye irritation. Category 1

Refer to Section 16 for the full text of the Health Instructions (H -) mentioned in this section.

**2.2 GHS Label elements, including precautionary statements****Hazard pictograms:****Signal word**

Warning

**Hazard statements:**

- 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

**Precautionary statement(s)****Prevention**

- P264 Wash ... thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell. Rinse mouth.  
 P302+P352 IF ON SKIN: Wash with plenty of water/...  
 P321 Specific treatment (see ... on this label).  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED:Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P501	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### 2.3 Physical and Chemical Hazards

No data available.

### 2.4 Health Hazards

H315	Causes skin irritation.
H319	Causes serious eye irritation.

### 2.5 Environmental Hazards

No data available.

### 2.6 Other Hazards

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## SECTION 3: Composition/information on ingredients

Substance/mixture: substance

### 3.1 Substance

Formula : F2NO4S2.Li

Molecular weight: 187.06 AMU

CAS No.: 171611-11-3

#### 危险物质

Composition	Concentration(or range)	Classification
Lithium bis(fluorosulfonyl) imide	100%	H302 Acute toxicity, oral. Category 4
		H311 Acute toxicity , dermal. Category 5
		H315 Skin Corrosion/ Irritation. Category 2
		H318 Serious eye damage/eye irritation. Category 1

Refer to Section 16 for the full text of the Health Instructions (H -) mentioned in this section.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General description

Consult a doctor. Show the safety technical manual to the doctor at the scene.

#### If Inhaled

If inhaled, please move the patient to fresh air.

#### In case of skin contact

Immediately remove any clothing soiled by the product. Wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

#### In case of eye contact

Rinse opened eye for at least 15 minutes under running water/saline. Consult a doctor.

#### If swallowed

Rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the label (see label 2.2).

### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### 4.4 Notes to Physician

No data available.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Extinguishing media: use water mist, foam, dry powder or carbon

Avoid using direct-current water to extinguish the fire. Direct-current water may cause splashing of flammable liquid and spread the fire.

### 5.2 Special hazards arising from the substance or mixture

No data available.

### 5.3 Special protective actions and precautions for firefighters

Wear full body protective clothing with breathing apparatus. Fire-extinguishing work is done from the windward.

Move containers from the fire site to the open space if safe to do.

If the container in the fire site has changed color or made a noise from the safety relief device, it must be evacuated immediately.

Isolate the accident site and prohibit irrelevant personnel from entering.

Collect and treat fire water to prevent environmental pollution.

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## SECTION 6: Accidental release measures

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

Wear air breathing apparatus, anti-static clothing and rubber oil resistant gloves.

Do not touch or cross the leakage.

All equipment used in operation shall be grounded.

Cut off the source of leakage as much as possible. Eliminate all sources of ignition.

A warning area shall be demarcated according to the influence area of liquid flow, steam or dust diffusion, and irrelevant personnel shall evacuate to the safe area from the crosswind and upwind direction.

### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Small amount of leakage: collect the leaked liquid in a sealable container. Absorb with sand, activated carbon or other inert materials and transfer to a safe place. Do not flush into the sewer.

Large amount of leakage: build a dike or dig a pit to receive. Close the drainage pipe. Cover with foam to inhibit evaporation. Use explosion-proof pump to transfer to tank car or special collector for recycling or transport to waste disposal site.

### 6.4 Reference to other sections

See Section 13 for disposal information.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

#### Information about fire - and explosion protection

Keep away from sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.

#### Hygienic measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

For precautions see section 2.2.

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

#### Conditions for safe storage

Store in a cool and ventilated warehouse. The warehouse temperature should not exceed 37 ° C. It shall be stored separately from oxidants and edible chemicals and shall not be mixed.

Keep container sealed.

Keep away from kindling and heat source.

The warehouse must be installed with lightning protection equipment. The exhaust system shall be equipped with a grounding device to conduct static electricity. Explosion proof lighting and ventilation shall be adopted.

It is prohibited to use equipment and tools that are easy to generate sparks.

The storage area shall be equipped with leakage emergency treatment equipment and appropriate materials.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS No.	Value	Basis	Limiting value
Lithium bis(fluorosulfonyl) imide	171611-11-3	TWA	GBZ 2.1—2007	MAC: PC-TWA: PC-STELPC-STEL:

### 8.2 Exposure controls

#### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

##### Face/eye protection

Tightly fitting safety goggles. 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.

##### Body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance and character	White Crystal or crystalline powder
b) odour	Data not available
c) Odour threshold	Data not available
d) pH value	Data not available
e) Melting point/freezing point	133 °C
f) initial boiling point and boiling range	Data not available
g) Flash point	Data not available
h) Evaporation rate	Data not available
i) Flammability (solid, gas)	Data not available
j) Combustible or explosive limits	Data not available
k) Vapour pressure	Data not available
l) Vapour density	Data not available
m) The density/relative density	Data not available
n) Water soluble	Data not available
o) Partition coefficient: n-octanol/water	Data not available
p) Auto-ignition temperature	Data not available
q) Decomposition temperature	Data not available
r) Viscosity	Dynamic: Data not available Kinematic: Data not available
s) Explosive properties	Data not available
t) Oxidising properties	Data not available

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## SECTION 10: Stability and reactivity

### 10.1 Chemical stability

Stable under recommended storage conditions.

### 10.2 Chemical reaction

Data not available

### 10.3 Conditions to avoid

Electrostatic Discharge, heat and damp

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

LD50 Data not available

LC50 Data not available

**Skin corrosion/irritation**

Data not available

**Serious eye damage/irritation**

Data not available

**Respiratory or skin sensitisation**

Data not available

**Germ cell mutagenicity**

Data not available

**Carcinogenicity**

Data not available

**Reproductive toxicity**

Data not available

**Specific target organ toxicity - single exposure**

Data not available

**Specific target organ toxicity - repeated exposure**

Data not available

**Aspiration hazard**

Data not available

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	Data not available
Toxicity to daphnia and other aquatic invertebrates	Data not available
Toxicity to algae	Data not available
Toxicity to bacteria	Data not available

**12.2 Persistence and degradability**

Biodegradability	Data not available
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**12.3 Bioaccumulative potential**

Data not available

**12.4 Mobility in soil**

Data not available

**12.5 Results of PBT and vPvB assessment**

PBT: Not applicable

vPvB: Not applicable

**12.6 Other adverse effects**

Toxic to aquatic life with long lasting effects.

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**SECTION 13: Disposal considerations**



### 13.1 Waste treatment methods

**Product**

Recycle to process, if possible. The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not discharge to sewer systems.

**Contaminated packaging**

Return the container to the manufacturer or dispose of it according to national or local regulations.

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## SECTION 14: Transport information

### 14.1 UN number

1759

### 14.2 UN proper shipping name

Corrosive solid, n.o.s

### 14.3 Transport hazard class(es)

8

### 14.4 Packaging group

II

### 14.5 Environmental hazards

Marine pollutant (yes/no): no

### 14.6 Special precautions for user

Please select appropriate transportation means and corresponding transportation and storage conditions according to the nature of chemicals. The means of transport shall be equipped with fire fighting materials of corresponding varieties and quantities and emergency treatment equipment for leakage. If road transportation is selected, please drive along the specified route.

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## SECTION 15: Regulatory information

### 15.1 The following laws, regulations, rules and standards have made corresponding provisions on the management of this chemical.

**Lithium bis(fluorosulfonyl) imide CAS: 171611-11-3**

**Law of the People's Republic of China on the Prevention of Occupational Diseases:**

Classification of occupational hazard factors (2015): not listed

**The Regulation on the Safety Administration of Dangerous Chemicals:**

Catalogue of hazardous chemicals (2015): not listed

List of explosive hazardous chemicals (2017): not listed

**List of hazardous chemicals under key supervision:**

List of the first and second batch of hazardous chemicals under key supervision: not listed

**Measures for Environmental Management Registration of Hazardous Chemicals (for Trial****Implementation):**

List of key hazardous chemicals for environmental management: not listed

**Regulations on the Administration of Narcotic Drugs and Psychotropic Substances:**

Category of narcotic drugs: not listed

Catalogue of psychotropic drugs: not listed

**Environmental management measures for new chemicals:**

List of Existing Chemical Substances in China (2013): not listed

**Other regulations**

Please note that waste disposal should also meet the requirements of local regulations.

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**SECTION 16: Other information****16.1 Full text of H-Statements referred to under sections 2 and 3.**

H302	May be harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H341	Suspected of causing genetic defects

**16.2 Compilation and revision information**

This is version 1.0. This safety data sheet is in compliance with the following national standards: GB/T 16483-2008、GB/T 17519-2013、GB 30000.

**16.3 References**

- 【1】 IPCS: (ICSC) , website: <http://www.ilo.org/dyn/icsc/showcard.home>
- 【2】 IARC, website: <http://www.iarc.fr/>
- 【3】 eChemportal-The Global Portal to Information on Chemical Substances by OECD  
website:[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- 【4】 CAMEO Chemicals, website:<http://cameochemicals.noaa.gov/search/simple>
- 【5】 ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- 【6】 U.S.Environmental Protection Agency: Integrated hazard information system,  
website: <http://cfpub.epa.gov/iris/>
- 【7】 ERG-Emergency Response Guidebook by U.S. DoT,  
website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- 【8】 German GESTIS-database on hazardous Substance, website: <http://gestis-en.itrust.de/>

**Abbreviations and acronyms**

MAC:maximum allowable concentration.It refers to the concentration of toxic chemicals that should not be exceeded at any time in a working day at the working place.

PC-TWA:permissible concentration-time weighted average, It refers to the average allowable exposure concentration of 8 h working days and 40 h working weeks with time as the weight.

PC-STEL:permissible concentration-short term exposure limit, It refers to the concentration allowed to be exposed for a short time (15 min) on the premise of observing PC-TWA.