# Safety Data Sheet

**Lithium bis(trifluoromethylsulfonyl)imide**

Revision Date: 11/20/2017
Date Issued: 2/15/2018

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

| | |
|---|---|
| **Product name** | Lithium bis(trifluoromethylsulfonyl)imide |
| **Product code** | LBE-0100 |
| **CAS** | 90076-65-6 |
| **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. |
| **Identified uses** | Laboratory chemicals, Manufacture of substances |
| **Supplier** | IoLiTec<br>Ionic Liquids Technologies GmbH<br>Salzstrasse 184<br>D – 74076 Heilbronn<br>Germany |
| **Telephone** | +49 (0)7131-89839-0 |
| **Fax** | +49 (0)7131-89839-109 |
| **Emergency telephone** | +49 (0)176-84850874 |
| **E-mail** | msds@iolitec.de |



## 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification (REGULTATION (EC) No 1272/2008)**

Acute toxicity (dermal), Category 3,
Acute toxicity (oral), Category 3,
Skin corrosion/irritation, Category 1B,

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Specific Target Organ Toxicity - Repeated exposure, Category 2,
Hazardous to the aquatic environment: Chronic hazard, Category 3

**Classification (67/548/EEC or 1999/45/EC)**

Causes burns. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Toxic in contact with skin and if swallowed. Harmful: danger of serious damage to health by prolonged exposure if swallowed.

**2.2 Label elements**
**Labelling (REGULATION (EC) No 1272/2008)**

Signal word: **Danger**

*Hazard statements*

**H-phrases**

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

*Precautionary statements*

**P phrases**

| | |
|---|---|
| P273 | Avoid release to the environment. |
| P280: | Wear protectic gloves/protective clothing/eye protection/face protection . |

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| | |
|---|---|
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| 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. |

**Labelling (67/548/EEC or 1999/45/EC)**


T

**Risk phrases**

| | |
|---|---|
| R24/25 | Toxic in contact with skin and if swallowed. |
| R34 | Causes burns. |
| R48/22 | Harmful: danger of serious damage to health by prolonged exposure if swallowed. |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient name | Contents | Health (Class) | Risk (H/R/No.) |
|---|---|---|---|
| Lithium bis(trifluoromethylsulfonyl)imide | 99% | | H311, H301, H314, H373, H412 |
| | | C, T | 23/24/25-34/35-36/37/38-41-48/22-52/53 |

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## 4 FIRST AID MEASURES

| | |
|---|---|
| **General** | Contaminated clothing should be removed and washed before being reused. |
| **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** | Wash the skin immediately with soap and water. |
| **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. |

## 5 FIRE FIGHTING MEASURES

| | |
|---|---|
| **Extinguishing media** | Use: Water spray, fog or mist. Carbon dioxides ($CO_2$). Dry chemicals, sand, dolomite etc. |
| **Special fire fighting procedures** | 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. |
| **Unusual fire & explosion hazards** | Fire causes formation of toxic gases. |

| | |
|---|---|
| **Protective measures in fire** | Wear self-contained breathing apparatus as combustion may produce hazardous fumes. |

## 6 ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| **Personal precautions during spill** | Wear protective clothing and avoid inhalation of vapor, skin or eye contact. |
| **Precautions to protect environment** | Avoid washing into water courses. Avoid contaminating public drains or water supply. |
| **Spill cleanup methods** | Avoid contact with skin or inhalation of spillage, dust or vapor, Avoid dust formation. Use neutralizing agent. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. |

## 7 HANDLING AND STORAGE

| | |
|---|---|
| **Usage precautions** | Keep away from heat, sparks and open flame. Do not use in confined spaces without adequate ventilation and/or respirator. |
| **Storage precautions** | Store at moderate temperatures in dry, well ventilated area. |
| **Storage criteria** | Chemical storage. |

## 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Control parameters**

Components with workplace control parameters

**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**

**Eye/face 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 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: > 480 min

Material tested: Dermatril® (Aldrich Z677272, Size M)

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: > 30 min

Material tested:Dermatril® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**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 full-face particle respirator type N100 (US) or type P3 (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).

## 9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance** | Solid, powder. |
| **Color** | white |
| **Odor/taste** | No characteristic odor, bitter taste. |
| **Melting point/melting range** | 234-238°C |

## 10 STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability** | No particular stability concerns. |
| **Materials to avoid** | Avoid contact to strong oxidizers. Avoid acid conditions. |
| **Hazardous Decomposition Products** | High temperatures generate: Corrosive gases/vapor/fumes of: Carbon dioxide ($CO_2$). Carbon monoxide (CO). Nitrous gases (NOx). Hydrogen fluoride (HF). Sulfur dioxide ($SO_2$). |

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## 11 TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**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**

no data available

**Specific target organ toxicity -repeated exposure**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

| | |
|---|---|
| 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**

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

**Additional Information**
RTECS: Not available

## 12 ECOLOGICAL INFORMATION

**Toxicity**
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 202 mg/l - 96,0 h
Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 20 mg/l - 48 h
**Persistence and degradability**
no data available
**Bioaccumulative potential**
no data available
**Mobility in soil**
no data available
**Results of PBT and vPvB assessment**
no data available
**Other adverse effects**
Harmful to aquatic life.

## 13 DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Disposal method** | Contact specialist disposal companies. Dispose of in accordance with Local Authority requirements. Recover and reclaim or recycle, if practical. |

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## 14 TRANSPORT INFORMATION

**UN number**
ADR/RID: 2923 IMDG: 2923 IATA: 2923
**UN proper shipping name**
ADR/RID: CORROSIVE SOLID, TOXIC, N.O.S. (Lithium bis(trifluoromethylsulfonyl)imide)
IMDG: CORROSIVE SOLID, TOXIC, N.O.S. (Lithium bis(trifluoromethylsulfonyl)imide)
IATA: Corrosive solid, toxic, n.o.s. (Lithium bis(trifluoromethylsulfonyl)imide)
**Transport hazard class(es)**
ADR/RID: 8 (6.1) IMDG: 8 (6.1) IATA: 8 (6.1)
**Packaging group**
ADR/RID: II IMDG: II IATA: II
**Environmental hazards**
ADR/RID: no IMDG Marine pollutant: no IATA: no
**Special precautions for user**
no data available

## 15 REGULATORY INFORMATION

**REGULATORY INFORMATION**
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
**Safety, health and environmental regulations/legislation specific for the substance or mixture**
German Regulation VwVwS (Self-assessment):
Water hazard class 2 (WGK2): hazard to waters. Do not allow to enter waters, waste water, or soil.

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**Chemical Safety Assessment**
no data available

## 16 OTHER INFORMATION

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