

## SAFETY DATA SHEET

Version 8.2  
Revision Date 07/01/2021  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Lithium nitrate 99.995 Suprapur®

Product Number : 1.05653  
Catalogue No. : 105653  
Brand : Millipore  
CAS-No. : 7790-69-4

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

Identified uses : Reagent for analysis

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

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone**

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Oxidizing solids (Category 3), H272  
Acute toxicity, Oral (Category 4), H302  
Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Warning

Hazard statement(s)

H272  
H302

May intensify fire; oxidizer.  
Harmful if swallowed.

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|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| H319                       | Causes serious eye irritation.                                                                                                   |
| Precautionary statement(s) |                                                                                                                                  |
| P210                       | Keep away from heat.                                                                                                             |
| P220                       | Keep/Store away from clothing/ combustible materials.                                                                            |
| P221                       | Take any precaution to avoid mixing with combustibles.                                                                           |
| P264                       | Wash skin thoroughly after handling.                                                                                             |
| P270                       | Do not eat, drink or smoke when using this product.                                                                              |
| P280                       | Wear protective gloves/ eye protection/ face protection.                                                                         |
| P301 + P312 + P330         | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.                                                      |
| 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.                                                                       |
| P370 + P378                | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.                                             |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.                                                              |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                     |
|------------------|---------------------|
| Formula          | : LiNO <sub>3</sub> |
| Molecular weight | : 68.94 g/mol       |
| CAS-No.          | : 7790-69-4         |
| EC-No.           | : 232-218-9         |

| Component              | Classification                                                  | Concentration |
|------------------------|-----------------------------------------------------------------|---------------|
| <b>Lithium nitrate</b> |                                                                 |               |
|                        | Ox. Sol. 3; Acute Tox. 4;<br>Eye Irrit. 2A; H272, H302,<br>H319 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

**In case of eye contact**

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

**If swallowed**

After swallowing: immediately make victim drink water (two glasses at most). 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 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

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

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

Nitrogen oxides (NO<sub>x</sub>)

Lithium oxides

Not combustible.

Fire may cause evolution of:

nitrous gases

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapours.

**5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

**5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

## 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition.

#### **Hygiene measures**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

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

#### **Storage conditions**

Tightly closed. Do not store near combustible materials.

Recommended storage temperature see product label.

Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

### 7.3 Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### **Appropriate engineering controls**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 480 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

### **Body Protection**

protective clothing

### **Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

### **Control of environmental exposure**

Do not let product enter drains.

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## **SECTION 9: Physical and chemical properties**

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

- |                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| a) Appearance                                   | Form: solid<br>Color: white          |
| b) Odor                                         | odorless                             |
| c) Odor Threshold                               | No data available                    |
| d) pH                                           | 7 - 9 at 50 g/l at 20 °C (68 °F)     |
| e) Melting point/freezing point                 | Melting point/range: 264 °C (507 °F) |
| f) Initial boiling point and boiling range      | No data available                    |
| g) Flash point                                  | ( )No data available                 |
| h) Evaporation rate                             | No data available                    |
| i) Flammability (solid, gas)                    | No data available                    |
| j) Upper/lower flammability or explosive limits | No data available                    |
| k) Vapor pressure                               | No data available                    |
| l) Vapor density                                | No data available                    |
| m) Relative density                             | No data available                    |
| n) Water solubility                             | 522 g/l at 20 °C (68 °F)             |
| o) Partition coefficient: n-octanol/water       | No data available                    |

|                              |                                                                          |
|------------------------------|--------------------------------------------------------------------------|
| p) Autoignition temperature  | No data available                                                        |
| q) Decomposition temperature | No data available                                                        |
| r) Viscosity                 | No data available                                                        |
| s) Explosive properties      | No data available                                                        |
| t) Oxidizing properties      | The substance or mixture is classified as oxidizing with the category 3. |

## 9.2 Other safety information

Bulk density ca.910 kg/m<sup>3</sup>

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:  
organic combustible substances  
ethanol

### 10.4 Conditions to avoid

Exposure to moisture.  
no information available

### 10.5 Incompatible materials

No data available

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - 1,426 mg/kg  
(OECD Test Guideline 401)  
LC50 Inhalation - Rat - male and female - 4 h - > 5.93 mg/l  
(OECD Test Guideline 403)  
LD50 Dermal - Rat - male and female - > 2,000 mg/kg  
(OECD Test Guideline 402)  
No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

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**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**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

**11.2 Additional Information**

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion., Cyanosis and t-wave inversion have occurred in the breast-fed infants of women receiving lithium carbonate therapy., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 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**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14: Transport information

#### DOT (US)

UN number: 2722 Class: 5.1 Packing group: III  
Proper shipping name: Lithium nitrate  
Reportable Quantity (RQ):  
Poison Inhalation Hazard: No

#### IMDG

UN number: 2722 Class: 5.1 Packing group: III EMS-No: F-A, S-Q  
Proper shipping name: LITHIUM NITRATE

#### IATA

UN number: 2722 Class: 5.1 Packing group: III  
Proper shipping name: Lithium nitrate

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## SECTION 15: Regulatory information

#### SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

#### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

|                 |                      |                             |
|-----------------|----------------------|-----------------------------|
| Lithium nitrate | CAS-No.<br>7790-69-4 | Revision Date<br>2007-03-01 |
|-----------------|----------------------|-----------------------------|

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

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## SECTION 16: Other information

#### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to

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