

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.0 Revision Date 30.03.2016

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

#### 1.1 Product identifiers

Product name : Sodium nitrate

Product Number : S5506

Brand : SIGALD

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.

CAS-No. : 7631-99-4

#### 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

Company : Sigma-Aldrich Chemie GmbH  
Eschenstrasse 5  
D-82024 TAUFKIRCHEN

Telephone : +49 (0)89 6513-1130

Fax : +49 (0)89 6513-1161

#### 1.4 Emergency telephone number

Emergency Phone # : 0800 181 7059 (CHEMTREC Deutschland)  
+49 (0)696 43508409 (CHEMTREC weltweit)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Oxidizing solids (Category 3), H272

Eye irritation (Category 2), H319

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

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H272

May intensify fire; oxidizer.

H319

Causes serious eye irritation.

Precautionary statement(s)

P220

Keep/Store away from clothing/ combustible materials.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove

Supplemental Hazard Statements	none
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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.

### 3.1 Substances

Formula :  $\text{NNaO}_3$   
Molecular weight : 84.99 g/mol  
CAS-No. : 7631-99-4  
EC-No. : 231-554-3

Hazardous ingredients according to Regulation (EC) No 1272/2008			
Component		Classification	Concentration
<b>Sodium nitrate</b>			
CAS-No.	7631-99-4	Ox. Sol. 3; Eye Irrit. 2; H272,	<= 100 %
EC-No.	231-554-3	H319	

## SECTION 4: First aid measures

#### 4.1 Description of first aid measures

## General advice

**Consult a physician.** Show this safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

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 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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## 5.2 Special hazards arising from the substance or mixture

## Sodium oxides

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.  
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

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### 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

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.  
For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Storage class (TRGS 510): 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

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / 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 industria situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **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**

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th 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**

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
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	9 at 100 g/l at 20 °C
e) Melting point/freezing point	306 °C
f) Initial boiling point and boiling range	380 °C
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) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	2.261 g/cm3
n) Water solubility	874 g/l at 20 °C - soluble
o) Partition coefficient: n-octanol/water	log Pow: -3.799 at 25 °C
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available

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|----|----------------------|--|
| 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	1,300 kg/m <sup>3</sup>
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Fusion of mixtures of metal cyanides, including lead thiocyanate, with met violent explosion. Addition of one solid component (even as a residue in dangerous. Heat

### 10.5 Incompatible materials

Strong acids, Strong reducing agents, Powdered metals, Organic materials, Alkali metals, Alkaline earth metals, Cyanides, thiocyanates

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides

Other decomposition products - No data available

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 - 3,430 mg/kg(Sodium nitrate)

LD50 Dermal - Rat - > 5,000 mg/kg(Sodium nitrate)

LD50 Intravenous - Mouse - 175 mg/kg(Sodium nitrate)

#### Skin corrosion/irritation

Skin - Rabbit(Sodium nitrate)

Result: No skin irritation

(OECD Test Guideline 404)

Remarks: Read-across (Analogy)

#### Serious eye damage/eye irritation

Eyes - Rabbit(Sodium nitrate)

Result: Eye irritation

(OECD Test Guideline 405)

#### Respiratory or skin sensitisation

in vivo assay - Mouse(Sodium nitrate)

Does not cause skin sensitisation.

(OECD Test Guideline 429)

#### Germ cell mutagenicity

Human(Sodium nitrate)

HeLa cell

Unscheduled DNA synthesis

(Sodium nitrate)

Mouse

Micronucleus test

(Sodium nitrate)  
Mouse  
Cytogenetic analysis

#### **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**

##### **Specific target organ toxicity - single exposure**

No data available(Sodium nitrate)

##### **Specific target organ toxicity - repeated exposure**

No data available

##### **Aspiration hazard**

No data available(Sodium nitrate)

#### **Additional Information**

RTECS: WC5600000

Absorption into the body leads to the formation of methemoglobin which in delayed 2 to 4 hours or longer.(Sodium nitrate)

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish static test LC50 - Gambusia affinis (Mosquito fish) - 6,650 mg/l - 96 h(Sodium nitrate)

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 6,000 mg/l - 24 h(Sodium nitrate)

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available(Sodium nitrate)

### **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 Other adverse effects**

No data available

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## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### **Contaminated packaging**

Dispose of as unused product.

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**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 1498

IMDG: 1498

IATA: 1498

**14.2 UN proper shipping name**

ADR/RID: SODIUM NITRATE

IMDG: SODIUM NITRATE

IATA: Sodium nitrate

**14.3 Transport hazard class(es)**

ADR/RID: 5.1

IMDG: 5.1

IATA: 5.1

**14.4 Packaging group**

ADR/RID: III

IMDG: III

IATA: III

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

No data available

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**SECTION 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**

For this product a chemical safety assessment was not carried out

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

H272

May intensify fire; oxidizer.

H319

Causes serious eye irritation.

**Further information**

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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 appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.