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

· **Informations to product No. 2451**

· **Product name:**

### **Natriumhydroxid in Perlen (technische Qualität)**

**Ätznatron, Kaustische Soda**

**Sodium hydroxide**

· **Supplier of the Product / responsible Company:**

Caesar & Loretz GmbH

Herderstr. 31

40721 Hilden

Tel.: 02103/4994-0

Fax: 02103/32360

e-mail: info@caelo.de

· **Emergency telephone:**

Giftinformationszentrum Mainz

Langenbeckstr. 1, 55131 Mainz

Tel.: 06131/19240

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

No further relevant information available.

· **Application of the substance / mixture:**

Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

## 2 Hazards identification

· **GHS-Labeling Elements:**



· **Signal word:** Danger

· **H-Phrases:**

H314 Causes severe skin burns and eye damage

H290 May be corrosive to metals

· **P-Phrases:**

P280 Wear protective gloves/protective clothing/eye protection/face protection

P301 IF SWALLOWED:

P330 Rinse mouth


P331 Do NOT induce vomiting

P309 IF exposed or you feel unwell:

P310 Immediately call a POISON CENTER or doctor/physician

P305 IF IN EYES:

P351 Rinse continuously with water for several minutes

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**Skin Corr. 1A**  
**Eye Dam. 1**  
**Met. Corr. 1**

### 3 Composition / information on ingredients

• **Chemical characterization:**

**CAS-No. Substance name**

1310-73-2 Sodium hydroxide

• **EINECS-No.:** 215-185-5

• **Index-No.:** 011-002-00-6

• **REACH Reg. No.:** 01-2119457892-27-0000

• **INCI-Name:** Sodium Hydroxide

### 4 First aid measures


- **after inhalation:** Bring the person out of the contaminated area to fresh air, Seek medical help immediately. Show product-label or this MSDS.
- **after skin contact:** Remove contaminated clothing immediately. Wash away with plenty of water. Wash away with Polyethylenglykol 400, seek medical advice, even if no immediate symptoms are observed.
- **after eye contact:** Rinse out with plenty of water with the eyelid wide open, seek medical advice, even if no immediate symptoms are observed.
- **after swallowing:** Drink plenty of water. Avoid vomiting (Danger of perforation). Seek medical advice immediately.

### 5 Fire-fighting measures

- **Suitable extinguishing media:** All regular extinguishing media can be used. Select fire fighting measures suitable to surrounding environment.
- **Specific hazards during fire fighting:** Not combustible. Prefere dry extinguishing media. If water is used, take care of the generated solution ( Avoid contact with aluminium alloys, because hydrogen gas can be generated, Explosion hazard!).
- **Special protective equipment for fire-fighters:** Suitable protective clothes and respiratory protection.
- **Additional information:** Prevent fire extinguishing water from contaminating surface water, the ground water system or soil. Residues must be deposited according to local regulations.

### 6 Accidental release measures:

- **Personal protective measures:** Avoid dust formation and contact with substance. Wear protective equipment. Keep away not protected persons.
- **Environmental protective measures:** Prevent from entering into drains.
- **Methods for cleaning:** Take up dry. Disposal according to Chapter 13 of this MSDS. Clean up with water.

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## 7 Handling and storage

- **Handling:**
- **Advice on safe handling:** Caution: strong heating in contact with water!
- **Storage:**
- **Requirements for storage areas and containers:**  
Tightly closed. Store at a dry place. At room temperature ( +15°C to +25°C ).  
Do not store in containers of aluminium, tin, zinc.
- **Advices on common storage:** Do not store together with acids.

## 8 Exposure controls / personal protective equipment

### Components with limit values that require monitoring at the workplace:

1310-73-2 Sodium hydroxide (100,0%)

MAK: 2 mg/m<sup>3</sup>, in dust


- **Personal protective equipment:**
- **Respiratory protection:** Dust protection mask.
- **Hand protection:** Protection gloves of rubber.
- **Eye protection:** Safety glasses.

## 9 Physical and chemical properties

- **Form:** solid
- **Colour:** white
- **Odour:** odourless
- **Melting point / melting range:** 319 °C
- **Boiling point / boiling range:** 1390 °C
- **Vapour pressure:** (800 °C) 3,5 hPa
- **Density:** (20 °C) 2,13 g/cm<sup>3</sup>
- **Solubility in / Miscibility with**
- **Water:** (20 °C) 1090 g/l
- **pH-range:** (50 g/l, 20 °C) ca. 14

## 10 Stability and reactivity

- **Materials to avoid:** Metals (combined with oxygen and/or moisture), Aluminium alloys (generates hydrogen gas), Ammonium compounds (generates ammonia), Earth alkali metals, halogens, Halogenated hydrocarbons, halogen oxides, organic nitrates phosphorous, non-metal oxides, acids (explosion hazard! ).
- **Hazardous decomposition products:** none
- **Additional information:** Extremely hygroscopic; exothermic solution process in water, keep away from metals, glass, animal/plant tissue.

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## 11 Toxicological information

**RTECS#:** CAS# 1310-73-2: WB4900000  
**LD50/LC50:** RTECS:  
**CAS# 1310-73-2:** Draize Test, Rabbit, eye: 400 ug Mild;  
Draize Test, Rabbit, eye : 1% Severe;  
Draize Test, Rabbit, eye: 50 ug/24H Severe;  
Draize Test, Rabbit, eye: 1 mg/24H Severe;  
Draize Test, Rabbit, skin: 500 mg/24H Severe;  
Oral, rabbit: LDLO = 500 mg/kg Eye, rabbit: 1mg/30s severe  
Ld50 (i.p., Mouse): 40 mg/kg  
**Carcinogenity:** Not classified as carcinogene.

- **Primary irritant effect:**
- **on skin:** Burnings on skin and mucous membranes.
- **on eyes:** Burnings, danger of blindness!
- **on respiratory organs:** Burnings on mucous membranes after respiration.
- **after swallowing:** Burnings. In oesophagus and stomach danger of perforation.

## 12 Ecological information


- **Information about elimination (persistence and degradability):**  
Not biodegradable.
- **Aquatic toxicity:**  
Toxic for fishes LC50: 189 mg/l (1N solution = 40 g/l).
- **Remark:** Harmful biological effect due to pH-shifting (even if diluted).
- **General advices:** Prevent from entering sewage water or drainage ditch undiluted or unneutralized.
- **Water hazard class:** 1 (VwVwS): slightly hazardous for water.

## 13 Disposal considerations

- **Product:**
- **Recommendation:** Disposal according to local regulations as pharmaceutical waste or inorganic laboratory chemicals.
- **Empty contaminated packaging:**
- **Recommendation:** Disposal according to the local regulations.

## 14 Transport informations

- **Land transport according to ADR:**
- **Proper shipping name:** Sodium hydroxide, solid
- **Class:** 8
- **UN-number:** 1823
- **Packing group:** II
- **Classification code:** C6
- **Limited quantities (Table 3.4.6. ADR):** 1 kg
- **Hazard classification number:** 80
- **Special provisions (Chapter 3.3 ADR):** -
- **Additional informations for sea transport IMDG:**

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• **EMS-No.:** F-A, S-B

• **Properties:** -

## 15 Regulatory information

• **Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):**

The product is classified and labelled according to GHS-regulations.

• **Hazard symbols:** GHS05

• **Signal word:** Danger

• **H-Phrases:**

H314 Causes severe skin burns and eye damage

H290 May be corrosive to metals

• **P-Phrases:**

P280 Wear protective gloves/protective clothing/eye protection/face protection

P301 IF SWALLOWED:

P330 Rinse mouth

P331 Do NOT induce vomiting

P309 IF exposed or you feel unwell:

P310 Immediately call a POISON CENTER or doctor/physician

P305 IF IN EYES:

P351 Rinse continuously with water for several minutes

• **National regulations (Germany):**

• **Water hazard class:** see chapter 12

• **Storage class TRGS 510:** 8B

## 16 Other Information

The information provided in this MSDS is correct to the best of our knowledge at the date of edition.

• **Reason for last revision:** Adjustment to regulation (EC) 1907/2006 (REACH) and GHS-labelling system.