

## Safety data sheet according to 1907/2006/EC, Article 31

revised on: 05.05.2023

Version number 6

Creation Date: 27.07.2016

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

- **1.1 Product identifier**
- **Trade name:** Sodium hydroxide solution 0.25 mol/l
- **Article number:** 1333
- **CAS Number:** 1310-73-2
- **Registration number** This product is a mixture. UK REACH registration numbers see section 3.
- **UFI:** Y9U1-S04V-K00R-1SFT
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Reagent for analysis  
Laboratory chemicals  
Industrial use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Th. Geyer GmbH & Co. KG  
Dornierstr. 4 – 6  
D-71272 Renningen  
  
Tel.: +49(0)7159-1637-0, Fax:+49 (0)7159/18417  
www.thgeyer.de  
sicherheitsdatenblaetter@thgeyer.de
- **Further information obtainable from:** Product management department
- **1.4 Emergency telephone number:**  
National Poisons Information Service  
City Hospital  
Dudley Road  
Birmingham B18 7QH  
Tel.:Emergency: (00 44) 87 06 00 62 66  
Members of the public seeking specific information on poisons should contact:  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the GB CLP regulation.

(Contd. on page 2)

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# Safety data sheet

## according to 1907/2006/EC, Article 31

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Version number 6

Creation Date: 27.07.2016

Trade name: Sodium hydroxide solution 0.25 mol/l

(Contd. of page 1)

### Hazard pictograms



GHS07

### Signal word Warning

#### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### Precautionary statements

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

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

|   |   |          |
|---|---|----------|
| CAS: 1310-73-2<br>EINECS: 215-185-5<br>Reg.nr.: 01-2119457892-27-XXXX | Sodium hydroxide<br>Met. Corr. 1, H290; Skin Corr. 1A, H314<br>Specific concentration limits: Skin Corr. 1A; H314: C ≥ 5 %<br>Skin Corr. 1B; H314: 2 % ≤ C < 5 %<br>Skin Irrit. 2; H315: 0.5 % ≤ C < 2 %<br>Eye Irrit. 2; H319: 0.5 % ≤ C < 2 % | ≥0.5–<2% |
|---|---|----------|

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information:** Immediately remove any clothing soiled by the product.

#### After inhalation:

Get some fresh air.

In case of unconsciousness place patient stably in side position for transportation.

#### After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Remove any contact lenses if possible.

Continue rinsing.

**After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

**Information for doctor:** Please observe safety data sheet/label.

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Version number 6

Creation Date: 27.07.2016

**Trade name: Sodium hydroxide solution 0.25 mol/l**

(Contd. of page 2)

- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**  
Not combustible.  
In case of fire, the following can be released:  
Sodium oxide  
Development of hazardous combustion gases or vapors possible in the event of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Cover drains.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.  
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in dry conditions.
- **Storage class:** 8 B
- **7.3 Specific end use(s)** No further relevant information available.

(Contd. on page 4)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 05.05.2023

Version number 6

Creation Date: 27.07.2016

Trade name: Sodium hydroxide solution 0.25 mol/l

(Contd. of page 3)

### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

##### · Ingredients with limit values that require monitoring at the workplace:

|   |
|---|
| <b>CAS: 1310-73-2 Sodium hydroxide</b>    |
| WEL Short-term value: 2 mg/m <sup>3</sup> |

#### · PNECs

- values relevant to the environment

- PNEC 0.176 mg/l freshwater short-term (single)

- PNEC 0.018 mg/l seawater short-term (one-off)

- PNEC 1.35 mg/l Wastewater treatment plant (STP) short-term (one-off)

- PNEC 6.97 mg/kg freshwater sediment short-term (single)

- PNEC 0.697 mg/kg marine sediment short-term (single)

- PNEC 1.29 mg/kg soil short-term (single)

- **Additional information:** The lists valid during the making were used as basis.

#### · 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see section 7.

- **Individual protection measures, such as personal protective equipment**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

- **Respiratory protection:** Not required.

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

NBR: acrylonitrile-butadiene rubber

Material thickness > 0.11 mm

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

level 6 for application > 480 min

- **Eye/face protection**



Tightly sealed goggles

- **Body protection:**



Protective work clothing (e. g. safety shoes EN ISO 20345, long-sleeved protective working garments).

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 05.05.2023

Version number 6

Creation Date: 27.07.2016

Trade name: Sodium hydroxide solution 0.25 mol/l

(Contd. of page 4)

### SECTION 9: Physical and chemical properties

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

##### General Information

|  |                                    |
|--|------------------------------------|
| · Physical state   | Fluid                              |
| · Colour:  | According to product specification |
| · Odour:   | Characteristic                     |
| · Odour threshold:   | Not determined.                    |
| · Melting point/freezing point:                            | 0 °C                               |
| · Boiling point or initial boiling point and boiling range | >100 °C                            |
| · Flammability   | Not applicable.                    |
| · Lower and upper explosion limit                          |                                    |
| · Lower:   | Not determined.                    |
| · Upper:   | Not determined.                    |
| · Flash point:   | Not applicable.                    |
| · Decomposition temperature:                               | Not determined.                    |
| · pH at 20 °C  | >11                                |
| · Viscosity:   |                                    |
| · Kinematic viscosity                                      | Not determined.                    |
| · Dynamic at 20 °C:  | 0.952 mPas                         |
| · Solubility   |                                    |
| · water:   | Fully miscible.                    |
| · Partition coefficient n-octanol/water (log value)        | Not determined.                    |
| · Vapour pressure at 20 °C:                                | 23 hPa                             |
| · Density and/or relative density                          |                                    |
| · Density at 20 °C:  | ~1.01 g/cm <sup>3</sup>            |
| · Relative density   | Not determined.                    |
| · Vapour density   | Not determined.                    |

#### 9.2 Other information

|   |   |
|---|---|
| · Appearance:   |   |
| · Form:   | Fluid   |
| · Important information on protection of health and environment, and on safety. |   |
| · Ignition temperature:   | Product is not selfigniting.                  |
| · Explosive properties:   | Product does not present an explosion hazard. |
| · Solvent content:  |   |
| · Water:  | 98–<99.1 %                                    |
| · VOC (EC)  | 0.00 %  |
| · Molecular weight  | 18.02 g/mol                                   |
| · Change in condition   |   |
| · Evaporation rate  | Not determined.                               |

#### Information with regard to physical hazard classes

|   |      |
|---|------|
| · Explosives                            | Void |
| · Flammable gases                       | Void |
| · Aerosols                              | Void |
| · Oxidising gases                       | Void |
| · Gases under pressure                  | Void |
| · Flammable liquids                     | Void |
| · Flammable solids                      | Void |
| · Self-reactive substances and mixtures | Void |
| · Pyrophoric liquids                    | Void |
| · Pyrophoric solids                     | Void |
| · Self-heating substances and mixtures  | Void |

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 05.05.2023

Version number 6

Creation Date: 27.07.2016

Trade name: Sodium hydroxide solution 0.25 mol/l

(Contd. of page 5)

|  |      |
|--|------|
| · <b>Substances and mixtures, which emit flammable gases in contact with water</b> | Void |
| · <b>Oxidising liquids</b>   | Void |
| · <b>Oxidising solids</b>  | Void |
| · <b>Organic peroxides</b>   | Void |
| · <b>Corrosive to metals</b>   | Void |
| · <b>Desensitised explosives</b>   | Void |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Substance or mixture having a corrosive effect on metals.
- **10.2 Chemical stability** Stable with proper storage and handling.
- **10.3 Possibility of hazardous reactions**  
Reacts with various metals.  
Reacts with alkaline metals.  
Reacts with strong acids.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Metals
- **10.6 Hazardous decomposition products:** On fire: see chapter 5

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

#### · Endocrine disrupting properties

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

(Contd. on page 7)

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Version number 6

Creation Date: 27.07.2016

**Trade name: Sodium hydroxide solution 0.25 mol/l**

(Contd. of page 6)

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Observe local (country-specific) regulations and laws

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Chemicals must be disposed of in compliance with the respective national regulations.

#### European waste catalogue

|     |   |
|-----|---|
| HP4 | Irritant - skin irritation and eye damage |
|-----|---|

#### Uncleaned packaging:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

**ADR, IMDG, IATA** UN1824

#### 14.2 UN proper shipping name

**ADR** 1824 SODIUM HYDROXIDE SOLUTION  
**IMDG, IATA** SODIUM HYDROXIDE SOLUTION

#### 14.3 Transport hazard class(es)

##### ADR



**Class** 8 (C5) Corrosive substances.  
**Label** 8

##### IMDG, IATA



**Class** 8 Corrosive substances.  
**Label** 8

#### 14.4 Packing group

**ADR, IMDG, IATA** III

#### 14.5 Environmental hazards:

Not applicable.

#### 14.6 Special precautions for user

Warning: Corrosive substances.

#### Hazard identification number (Kemler code):

80

#### EMS Number:

F-A,S-B

#### Segregation groups

(SGG18) Alkalis

#### Stowage Category

A

#### Segregation Code

SG35 Stow "separated from" SGG1-acids

(Contd. on page 8)

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Creation Date: 27.07.2016

Trade name: Sodium hydroxide solution 0.25 mol/l

(Contd. of page 7)

|   |  |
|---|--|
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b> | Not applicable.  |
| · <b>Transport/Additional information:</b>                            |  |
| · <b>ADR</b>  |  |
| · <b>Limited quantities (LQ)</b>                                      | 5L   |
| · <b>Excepted quantities (EQ)</b>                                     | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · <b>Transport category</b>   | 3  |
| · <b>Tunnel restriction code</b>                                      | E  |
| · <b>IMDG</b>   |  |
| · <b>Limited quantities (LQ)</b>                                      | 5L   |
| · <b>Excepted quantities (EQ)</b>                                     | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · <b>UN "Model Regulation":</b>                                       | UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III  |

### SECTION 15: Regulatory information

#### · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### · Inventory of Hazardous Chemicals

CAS: 1310-73-2 | Sodium hydroxide

##### · Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

##### · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

##### · REGULATION (EU) 2019/1148

##### · Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

##### · Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

##### · Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

##### · Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

##### · National regulations:

##### · Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

(Contd. on page 9)



# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 05.05.2023

Version number 6

Creation Date: 27.07.2016

**Trade name: Sodium hydroxide solution 0.25 mol/l**

(Contd. of page 8)

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Application, use and handling of our products take place out of our control and are solely your responsibility.

· **Relevant phrases**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

· **Department issuing SDS:** Product management

· **Contact:** Product management

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PNEC: Predicted No-Effect Concentration (UK REACH)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

· **\* Data compared to the previous version altered.**

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