

# Safety data sheet

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

Printing date 15.11.2023

Version number 1

Revision: 28.08.2023

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

- **1.1 Product identifier**
- **Trade name:** Sodium hydroxide 45 %
- **Article number:** 87
- **UFI:** MNA0-X0C8-N00X-UXG7
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category**  
PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents  
PC0 Other
- **Application of the substance / the mixture** Chemical.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Möller Chemie GmbH & Co. KG  
Bürgerkamp 1  
D-48565 Steinfurt  
Tel.: 02551/9340-0  
Fax: 02551/9340-60
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

### SECTION 2: Hazards identification

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



GHS05 corrosion

- Met. Corr.1 H290 May be corrosive to metals.
- Skin Corr. 1A H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

- **Signal word** Danger
- **Hazard statements**  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
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/doctor.  
P321 Specific treatment (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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**2.3 Other hazards**

The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting properties.

**Results of PBT and vPvB assessment****PBT:**

The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).

**vPvB:**

The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).

### SECTION 3: Composition/information on ingredients

**3.2 Mixtures**

**Description:** Mixture of the substances listed below with harmless additives.

**Dangerous components:**

CAS: 1310-73-2	sodium hydroxide	45.0%
EINECS: 215-185-5	Met. Corr.1, H290; Skin Corr. 1A, H314	
Index number: 011-002-00-6	Specific concentration limits: Skin Corr. 1A; H314: $C \geq 5\%$ Skin Corr. 1B; H314: $2\% \leq C < 5\%$ Skin Irrit. 2; H315: $0.5\% \leq C < 2\%$ Eye Irrit. 2; H319: $0.5\% \leq C < 2\%$	

**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**

**After inhalation:** Supply fresh air.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

**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:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

**5.3 Advice for firefighters**

**Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Avoid contact with eyes and skin

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- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).  
Use neutralising agent.  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **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**  
Avoid contact with eyes and skin.  
When diluting always pour product into water and not vice versa.
- **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:** Keep container tightly closed.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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**
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Hand protection**



Protective gloves

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

- **Material of gloves**  
Rubber gloves  
PVC 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.

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- **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.
- **Eye/face protection**



Tightly sealed goggles

- **Body protection:** Alkaline resistant protective clothing

## SECTION 9: Physical and chemical properties

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

#### · General Information

- |   |                        |
|---|------------------------|
| · <b>Colour:</b>  | Colourless             |
| · <b>Odour:</b>   | Odourless              |
| · <b>Odour threshold:</b>   | Not determined.        |
| · <b>Melting point/freezing point:</b>                            | Undetermined.          |
| · <b>Boiling point or initial boiling point and boiling range</b> | 135 °C                 |
| · <b>Flammability</b>   | Not applicable.        |
| · <b>Lower and upper explosion limit</b>                          |                        |
| · <b>Lower:</b>   | Not determined.        |
| · <b>Upper:</b>   | Not determined.        |
| · <b>Flash point:</b>   | not applicable         |
| · <b>Decomposition temperature:</b>                               | Not determined.        |
| · <b>pH at 20 °C</b>  | 14                     |
| · <b>Viscosity:</b>   |                        |
| · <b>Kinematic viscosity</b>                                      | Not determined.        |
| · <b>Dynamic:</b>   | Not determined.        |
| · <b>Solubility</b>   |                        |
| · <b>water:</b>   | Fully miscible.        |
| · <b>Partition coefficient n-octanol/water (log value)</b>        | Not determined.        |
| · <b>Vapour pressure:</b>   | Not determined.        |
| · <b>Density and/or relative density</b>                          |                        |
| · <b>Density at 20 °C:</b>  | 1.48 g/cm <sup>3</sup> |
| · <b>Relative density</b>   | Not determined.        |
| · <b>Vapour density</b>   | Not determined.        |

### · 9.2 Other information

- |  |   |
|--|---|
| · <b>Appearance:</b>   |   |
| · <b>Form:</b>   | Fluid   |
| · <b>Important information on protection of health and environment, and on safety.</b> |   |
| · <b>Ignition temperature:</b>   | Product is not selfigniting.                  |
| · <b>Explosive properties:</b>   | Product does not present an explosion hazard. |
| · <b>Change in condition</b>   |   |
| · <b>Evaporation rate</b>  | Not determined.                               |

### · Information with regard to physical hazard classes

- |                               |      |
|-------------------------------|------|
| · <b>Explosives</b>           | Void |
| · <b>Flammable gases</b>      | Void |
| · <b>Aerosols</b>             | Void |
| · <b>Oxidising gases</b>      | Void |
| · <b>Gases under pressure</b> | Void |
| · <b>Flammable liquids</b>    | Void |
| · <b>Flammable solids</b>     | Void |

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· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <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>	May be corrosive to metals.
· <b>Desensitised explosives</b>	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Reacts with water and acids.  
Reacts with various metals.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Acids.  
metals
- **10.6 Hazardous decomposition products:**  
No hazardous decomposition products if stored and handled as prescribed/indicated become.

### 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 severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **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**  
Anorganic product, is not eliminable from water by means of biological cleaning processes.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** The product is not considered to be persistent or very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **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

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | UN1824  |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | 1824 SODIUM HYDROXIDE SOLUTION<br>SODIUM HYDROXIDE SOLUTION |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul> <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | 8 (C5) Corrosive substances.<br>8                           |
| <ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul> <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | 8 Corrosive substances.<br>8                                |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | II  |
| <ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>   | No  |
| <ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> </ul>   | Warning: Corrosive substances.<br>80<br>F-A,S-B             |

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· <b>Segregation groups</b>	(SGG18) Alkalis
· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <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>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II

### SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** The material is not included.

· **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.

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

### 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.

· **Relevant phrases**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Department issuing SDS:** Product safety department

· **Contact:** Mrs. Steyer

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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*ICAO: International Civil Aviation Organisation**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)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**ATE: Acute toxicity estimate values**Met. Corr. 1: Corrosive to metals – Category 1**Skin Corr. 1A: Skin corrosion/irritation – Category 1A**Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

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