Safety data sheet

according to Regulation (EC) No 1907/2006 (REACH)

Printing date 27.07.2015 Version number 3 Revision: 27.07.2015

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

• **Product identifier**

• ***Trade name:*** MZ/NH3/CN
• *Article number:* 150130

• ***Description:*** Alkaline reagent, NaOH
• ***Relevant identified uses of the substance or mixture and uses advised against:*** No further relevant information available.

• *Application of the substance / the preparation:* Sample conditioning solution
• ***Manufacturer/Supplier:***

Wissenschaftlich-Technische Werkstätten GmbH
Dr.-Karl-Slevogt-Straße 1
82362 Weilheim
Deutschland
Tel. +49 881 183-0

• ***Further information obtainable from:*** E-mail: info@wtw.de
• ***Emergency telephone number:*** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

2 Hazards identification

• **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.

• **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-determining components of labelling:*
Sodium hydroxide
• *Hazard statements:*
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
• *Precautionary statements:*
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.

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3 Composition/information on ingredients

- **Chemical characterization:**
- ***Description:***

Mixture, consisting of the following components:
Water, sodium hydroxide

- ***Dangerous components:***

CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	Sodium hydroxide	Met. Corr.1, H290; Skin Corr. 1A, H314	20 - <50%

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

4 First aid measures

- **Description of first aid measures**
- ***After inhalation:***

In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air or oxygen; call for doctor.

- ***After skin contact:***

Immediately rinse with water.
Take off immediately all contaminated clothing and wash it before reuse.
Seek immediate medical advice.

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

Make victim drink water immediately (2 glasses at most).
Do not induce vomiting (risk of perforation)
Do not attempt to neutralize.
Call a doctor immediately.

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

5 Firefighting measures

- **Extinguishing media**
- ***Suitable extinguishing agents:*** The product is not flammable. Extinguishing agent to suit environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- ***Protective equipment:*** No special measures required.

6 Accidental release measures

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

Wear personal protective equipment (see section 8).

- **Environmental precautions:**

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

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Wash off residuals with water.

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7 Handling and storage

- **Handling:**
- ***Precautions for safe handling*** Wear personal protective equipment (see section 8)
- ***Information about fire - and explosion protection:*** No special measures required.

- **Conditions for safe storage, including any incompatibilities**
- *Requirements to be met by storerooms and receptacles:* No special requirements.
- *Information about storage in one common storage facility:* Not required.
- *Further information about storage conditions:* Store tigthly sealed at temperatures between 15 °C and 25 °C.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **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.

- **Exposure controls**
- ***Personal protective equipment:***
- *General protective and hygienic measures:*
  Avoid contact with the eyes and skin.
  Do not inhale gases / fumes / aerosols.
  Take off contaminated clothing and wash it before reuse.
  Wash hands before breaks and at the end of work.
- *Respiratory protection:*
  Use suitable respiratory protective device only when aerosol or mist is formed.
  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.
- *Recommended filter device for short term use:* Combination filter B-P2
- *Protection of hands:* Protective gloves
- *Material of gloves* Nitrile rubber, NBR
- *Eye protection:* Tightly sealed goggles
- *Body protection:* Alkaline resistant protective clothing

9 Physical and chemical properties

• **Information on basic physical and chemical properties**	
• ***General Information***	
• *Appearance:*	
Form:	Fluid
Colour:	Colourless
• *Odour:*	Odourless
• ***pH-value at 20 °C:***	> 12
• ***Change in condition***	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C
• ***Flash point:***	Not applicable.

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• ***Self-igniting:***	Product is not selfigniting.
• ***Danger of explosion:***	Product does not present an explosion hazard.
• ***Vapour pressure at 20 °C:***	23 hPa
• ***Density at 20 °C:***	1,33 g/cm³
• ***Solubility in / Miscibility with*** *water:*	Fully miscible.
• ***Viscosity:***	
Dynamic:	Not determined.
Kinematic:	Not determined.
• **Other information**	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- ***Chemical stability***
- *Thermal decomposition / conditions to be avoided:* No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
  Exothermic reaction with acids.
  Reacts with base metals forming hydrogen.
  Reactions with ammonium salts will form ammonia.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Acids

11 Toxicological information

- **Information on toxicological effects**
- ***Acute toxicity***

• *LD/LC50 values relevant for classification:*		
1310-73-2 Sodium hydroxide		
Oral	LD50	2000 mg/kg (Rat)

- *Primary irritant effect:*
- *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.

- ***Additional toxicological information:***
  If ingested, severe burns of the mouth and throat, as well as a danger of the perforation of the oesophagus and the stomach.
- *CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)*
- *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.

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12 Ecological information

- **Toxicity**
- ***Aquatic toxicity:*** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- ***Bioaccumulative potential*** No further relevant information available.
- ***Mobility in soil*** No further relevant information available.
- **Additional ecological information:**
- ***General notes:***
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  Detrimental effect due to shift of pH value.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- ***Recommendation***
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.
  Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.
- **Uncleaned packaging:**
- ***Recommendation:***
  Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
  Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- ***Recommended cleansing agents:*** Water, if necessary together with cleansing agents.

14 Transport information

• **UN-Number** • ***ADR, IMDG, IATA***	UN1824
• **UN proper shipping name** • ***ADR*** • ***IMDG, IATA***	1824 SODIUM HYDROXIDE SOLUTION SODIUM HYDROXIDE SOLUTION
• **Transport hazard class(es)** • ***ADR, IMDG, IATA***  • *Class* • *Label*	 8 Corrosive substances. 8
• **Packing group** • ***ADR, IMDG, IATA***	II
• **Environmental hazards:** • ***Marine pollutant:***	No

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• *EMS Number:*	F-A,S-B
• **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
• **Transport/Additional information:**	
• ***ADR***	
• *Limited quantities (LQ)*	1L
• **UN "Model Regulation":**	UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II

* 15 Regulatory information

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

• ***Directive 2012/18/EU***
• *Named dangerous substances - ANNEX I* None of the ingredients is listed.
• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

• *Relevant phrases*
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
• ***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)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord européen sur le transport 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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Met. Corr.1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
• **** Data compared to the previous version altered.***