Safety data sheet

according to 1907/2006/EC, Article 31

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

· **1.1 Product identifier**

· **Trade name: NHP 600**

· **Article number:** 209140

· **CAS number:**
1310-73-2

· **EC number:**
215-185-5

· **Description:** Sodium hydroxide pellets

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

· **Product category:** PC21 Laboratory chemicals

· **Process category:** PROC15 Use as laboratory reagent

· **Application of the substance / the preparation:** Carbon dioxide absorbent for BOD measurements

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
Xylem Analytics Germany GmbH
WTW
Am Achalaich 11
82362 Weilheim
Germany
Tel. +49 881 183-0

· **Further information obtainable from:** E-mail: Info.WTW@xylem.com

· **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

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.

· **2.2 Label elements:**

· **Labelling according to Regulation (EC) No 1272/2008:** The substance 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.

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· **Precautionary statements:**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **2.3 Other hazards** No further relevant information available.

SECTION 3: Composition/information on ingredients

· **3.1 Substances**
· **CAS No. Description**
1310-73-2 Sodium hydroxide
· **Identification number(s):**
· **EC number:** 215-185-5
· **Index number:** 011-002-00-6
· **Specific concentration limits**
Skin Corr. 1A; H314: C ≥ 5 %
Skin Corr. 1B; H314: 2 % ≤ C < 5 %
Skin Irrit. 2; H315: 0.5 % ≤ C < 2 %
Eye Irrit. 2; H319: 0.5 % ≤ C < 2 %

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Wash with plenty of water.
Take off immediately all contaminated clothing and wash it before reuse.
Call a doctor immediately.
· **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)
Call a doctor immediately.
Do not attempt to neutralize.
· **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:**
The product is not flammable. Extinguishing agent to suit environment.
Preferably use dry extinguishing agents. Be aware of the sodium hydroxide solution which is formed when using water.
· **5.2 Special hazards arising from the substance or mixture** Formation of hazardous gases or vapors is possible.
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear chemical protective clothing in the case of heavy toxic load.
· **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear personal protective equipment (see section 8).

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· **6.2 Environmental precautions:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to section 13.
Wash off residuals with water.
· **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**
Wear personal protective equipment (see section 8)
Be careful when bringing the substance in contact with water. Strong heat evolution. Danger of base spills.
· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Provide alkali-resistant floor.
· **Information about storage in one common storage facility:** Do not store together with acids or ammonium salts.
· **Further information about storage conditions:**
Keep container tightly sealed.
Store in dry conditions.
· **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:** Not required.
· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see item 7.

· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Avoid contact with the eyes and skin.
Take off contaminated clothing and wash it before reuse.
Wash hands before breaks and at the end of work.
· **Respiratory protection:** Required when dusts are formed.
· **Recommended filter device for short term use:** Filter P2
· **Hand protection** Protective gloves
· **Material of gloves** Nitrile rubber, NBR
· **Eye/face protection** Safety glasses
· **Environmental exposure controls**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Physical state** Solid

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· **Colour:**	White
· **Odour:**	Odourless
· **Melting point/freezing point:**	319 °C
· **Boiling point or initial boiling point and boiling range**	1390 °C
· **Flammability**	Product is not flammable.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	Not applicable.
· **pH**	14
· **Viscosity:**	
· **Kinematic viscosity**	Not applicable.
· **Dynamic:**	Not applicable.
· **Solubility**	
· **water at 20 °C:**	1090 g/l
· **Vapour pressure at 800 °C:**	3.5 hPa
· **Density and/or relative density**	
· **Density at 20 °C:**	2.13 g/cm³
· **Particle characteristics**	See item 3.

· **9.2 Other information**

· **Appearance:**	
· **Form:**	Solid
· **Important information on protection of health and environment, and on safety.**	
· **Explosive properties:**	Product does not present an explosion hazard.

· **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
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	
May be corrosive to metals.	
· **Desensitised explosives**	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**

Strong heat evolution when reacting with water.

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Violent reaction with acids.
Formation of hydrogen possible with several metals and alloys in the presence of moisture (risk of explosion).
Reactions with ammonium salts will form ammonia.

· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.
· **Additional information:** Hygroscopic

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity**
No quantitative toxicity data are available for this product.
Based on available data, the classification criteria are not met.

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

· **Skin corrosion/irritation** Causes severe skin burns and eye damage.
· **Serious eye damage/irritation**
Severe irritations, risk of cornea cloudness, risk of blindness.
Based on available data, the classification criteria are not met.
· **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.

· **Additional toxicological information:**
· **Acute effects (acute toxicity, irritation and corrosivity):**
If ingested, severe burns of the mouth and throat, as well as a danger of the perforation of the oesophagus and the stomach.
· **11.2 Information on other hazards**

· **Endocrine disrupting properties**
Substance is not 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** Not applicable.
· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

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.

SECTION 14: Transport information

· **14.1 UN number or ID number**	
· **ADR/RID, IMDG, IATA**	UN1823
· **14.2 UN proper shipping name**	
· **ADR/RID**	1823 SODIUM HYDROXIDE, SOLID
· **IMDG, IATA**	SODIUM HYDROXIDE, SOLID
· **14.3 Transport hazard class(es)**	
· **ADR/RID, IMDG, IATA**	

· **Class**	8 Corrosive substances.
· **Label**	8
· **14.4 Packing group**	
· **ADR/RID, IMDG, IATA**	II
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	Warning: Corrosive substances.
· **EMS Number:**	F-A,S-B
· **Segregation groups**	(SGG18) Alkalis
· **Stowage Category**	A
· **Segregation Code**	SG35 Stow "separated from" SGG1-acids
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **ADR/RID**	
· **Limited quantities (LQ)**	1 kg
· **Transport category**	2
· **Tunnel restriction code**	E
· **UN "Model Regulation":**	UN 1823 SODIUM HYDROXIDE, SOLID, 8, II

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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** Substance is not listed.

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

Substance is not listed.

· **REGULATION (EU) 2019/1148**

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

Substance is not listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

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

SECTION 16: Other information

· **Date of previous version:** 19.01.2023
· **Version number of previous version:** 7
· **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)
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
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
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