Sodium Hydroxide

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

1.1. Product identifier

Product name:	Sodium Hydroxide
CAS Number:	1310-73-2
EC Number:	215-185-5

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

Product use:	Laboratory chemicals, Industrial & for professional use only

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Corrosive to metals (Category 1),	H290
Skin corrosion (Sub-category 1A),	H314
Serious eye damage (Category 1),	H318

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Pictogram

Signal word	Danger

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Precautionary statement(s)

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P234	Keep only in original packaging
P260	Do not breathe dust or mist.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Supplemental Hazard Statements None.

Reduced Labelling (<= 125 ml)
Pictogram

Signal Word Danger

Hazard statement(s)
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P260	Do not breathe dust or mist.
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.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, If present and easy to do. Continue rinsing.

Supplemental Hazard Statements None.

3.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

Name	CAS#	% by Weight
Sodium hydroxide Pellets	1310-73-2	< 100%

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Section 4: First aid measures

4.1 Description of first-aid measures
General advice
First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled
After inhalation: fresh air. Call in physician.

In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact
After eye contact: rinse out with plenty of water. Immediately call-in ophthalmologist. Remove contact lenses.

If swallowed
After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 3.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

Section 5: Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
Fer this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Sodium oxides Not combustible. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information
Suppress (knock down) gases /vapours /mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation.
Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections
For disposal see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling
For precautions see section 3.2.

7.2 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with workplace control parameters

8.2 Exposure controls
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles.

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Hand Protection	protective gloves
Eye protection	Chemical goggles or face shield
Skin and body protection	Wear suitable protective clothing
Respiratory protection	Wear appropriate mask

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Exposure Time: 42 Min, Observation Time: 13 Days.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: solid
Odor	odourless
Odor Threshold	No data available
pH	ca.> 14 at 100 g/l at 20°C
Melting point/ freezing point Melting point	318°C
Initial boiling point and boiling range	1.390°C at 1.013 hPa
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	< 24 hPa at 20°C
Vapor density	2.13 g/cm3 at 20°C
Relative density	No data available
Water solubility	1.090 g/l at 20°C
Partition coefficient: n-octanol/ water	Not applicable for inorganic substances
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information

No data available

Section 10: Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions

Violent reactions possible with

Acetone
Chlorine
Ethylene oxide
Fluorine
Hydrogen halides
Hydrazine hydrate
hydroxylamine
Acid anhydrides
Acrolein
Acid chlorides

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Acids
Sulfuric acid
Chloroform
Water
Hydrogen peroxide
Anhydrides
Phosphides
Halogen-halogen compounds
Trichloroethene

Can decompose violently in contact with
Organic Substances
Hydrogen sulphide

Risk of ignition or formation of inflammable gases or vapours with
Powdered aluminium
Ammonium salts
Persulfates
Sodium borohydride
Phosphorus
Oxides of phosphorus
Halogenated hydrocarbon
Light metals
Metals

Risk of explosion/exothermic reaction with
Bromine
Calcium
In powder form
Furfuryl alcohol
Nitromethane
Peroxides
Organic nitro compounds
Nitriles
Acrylic monomers
Chloroform with Acetone
Nitrobenzene with Methanol
Nitrobenzene with salts
Magnesium
Zinc and Tin
(In the presence of atmospheric oxygen and/or moisture)

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Aluminium, brass, Metals, metal alloys, Zinc, Tin

10.6 Hazardous decomposition products
In the event of fire: see section 5

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Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Oral	No data available.
Symptoms	If ingested, severe burns of the mouth and throat as well as a danger of perforation of the oesophagus and the stomach.
Symptoms	Burns of mucous membranes, Cough, Shortness of breath, Possible damages: damage of respiratory tract.
Dermal	No data available

Skin corrosion/ irritation

Skin	Rabbit
Result	Causes burns.
Remarks	(Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Eyes	Rabbit
Result	Causes serious eye damage.
(	OECD Test Guideline 405)
Remarks	(Regulation (EC) No 1272/2008, Annex VI)
	Causes serious eye damage.

Respiratory or skin sensitization

Patch test	- In vitro study
Result	Negative
Remarks	(ECHA)

Germ cell mutagenicity

No data available

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Endocrine disrupting properties

Product

Assessment

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The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice.

Section 12: Ecological Information

12.1 Toxicity
Toxicity to fish
LC50 - Gambusia affine (Mosquito fish) - 125 mg/l - 96 h
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates
EC50 - Cerio daphnia (water flea) - 40.4 mg/l - 48 h Remarks: (ECHA)
Toxicity to bacteria EC50 - Photobacterium phosphoreum - 22 mg/l - 15 min Remarks: (External MSDS)

12.2 Persistence and degradability
The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bio accumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
This substance/ mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bid accumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties
Product Assessment
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects
Harmful to aquatic life.

Section 13: Disposal considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national

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and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging
Dispose of as unused product.

Section 14: Transport Information

14.1 UN number

ADR/ RID	1823
IMDG	1823
IATA	1823

14.2 UN Proper Shipping Name

ADR/ RID	SODIUM HYDROXIDE, SOLID
IMDG	SODIUM HYDROXIDE, SOLID
IATA	SODIUM HYDROXIDE, SOLID

14.3 Transport Hazard Class(es)

ADR/ RID	8
IMDG	8
IATA	8

14.4 Packaging Group

ADR/ RID	II
IMDG	II
IATA	II

14.5 Environmental Hazards

ADR/RID	No
IMDG Marine Pollutant	No
IATA	No

14.6 Special Precautions for User
No data available

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out.

Section 16: Other Information

This information is provided for documentation purposes only.
The information contained in this Certificate of Analysis and Material Safety Data Sheet is obtained from current and reliable sources. Nothing herein should be interpreted as a recommendation to infringe existing patents or

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violate any Laws or Regulation. Final determination of the suitability of the material is the sole responsibility of the user.