

# Material Safety Data Sheet

Version:02

Revision Date 26/5/2025

Section 1. Product Information and Company Identification			
<b>Product name</b>	Sodium Hydroxide Solution 30%		
<b>Mol. formula</b>	NaOH	<b>CAS No.</b>	1310-73-2
<b>Mol.wt</b>	40.00 g\mol		
<b>Manufacturer name</b>	Pioneers for laboratory chemicals		
<b>Brand name</b>	Piochem		
<b>Address</b>	Area 540, Industrial Zone 6 <sup>th</sup> October city Giza, Egypt.		
<b>Website</b>	www.piochem.com		
<b>E-mail</b>	info@piochem.com		
<b>Phone number</b>	+201225728304 , +201023932115		

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Corrosive to Metals, (Category 1) H290: May be corrosive to metals.

Skin corrosion, (Sub-category 1A) H314: Causes severe skin burns and eye damage.

Serious eye damage, (Category 1) H318: Causes serious eye damage.

### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008**



Signal Word

Danger

Hazard Statements

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

Precautionary Statements

P234

Keep only in original packaging.

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.

P363

Wash contaminated clothing before reuse.

Supplemental Hazard Statements

none

### Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard Statements

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.

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.

P363

Wash contaminated clothing before reuse.

Supplemental Hazard Statements

none

## 2.3 Other hazards

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

Ecological information:

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.

Toxicological information:

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Component		Classification	Concentration
<b>sodium hydroxide</b>			
CAS-No.	1310-73-2	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318	>= 30 - < 50 %
EC-No.	215-185-5		
Index-No.	011-002-00-6		
Registration number	01-2119457892-27-XXXX	Concentration limits: >= 5 %: Skin Corr. 1A, H314; 2 - < 5 %: Skin Corr. 1B, H314; 0,5 - < 2 %: Skin Irrit. 2, H315; 0,5 - < 2 %: Eye Irrit. 2, H319; >= 0,4 %: Met. Corr. 1, H290;	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves.

#### 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 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Sodium oxides

Not combustible.

### 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/vapors/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 substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: 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 with liquid-absorbent and neutralising material (e.g. Chemizorb® OH<sup>-</sup>, Merck Art. No. 101596). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### **Advice on safe handling**

Observe label precautions.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.  
For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

#### **Storage conditions**

No aluminium, tin, or zinc containers.

Tightly closed. No metal containers.

**Storage class**

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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**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**

Tightly fitting safety goggles

**Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

**Body Protection**

protective clothing

**Respiratory protection**

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Control of environmental exposure**

Do not let product enter drains.

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

- |   |  |
|---|--|
| a) Physical state                               | liquid   |
| b) Color  | colorless  |
| c) Odor   | odorless   |
| d) Melting point/freezing point                 | No data available  |
| e) Initial boiling point and boiling range      | No data available  |
| f) Flammability (solid, gas)                    | No data available  |
| g) Upper/lower flammability or explosive limits | No data available  |
| h) Flash point                                  | Not applicable   |
| i) Autoignition temperature                     | No data available  |
| j) Decomposition temperature                    | No data available  |
| k) pH   | ca.14 at 20 °C   |
| l) Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| m) Water solubility                             | at 20 °C soluble   |
| n) Partition coefficient: n-octanol/water       | No data available  |
| o) Vapor pressure                               | No data available  |
| p) Density                                      | 1,33 g/cm <sup>3</sup> at 20 °C  |
| Relative density                                | No data available  |
| q) Relative vapor density                       | No data available  |
| r) Particle characteristics                     | No data available  |
|   |  |
| s) Explosive properties                         | Not classified as explosive.   |
| t) Oxidizing properties                         | none   |

**9.2 Other safety information**

No data available

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**SECTION 10: Stability and reactivity****10.1 Reactivity**

No data available

**10.2 Chemical stability**

No data available

**10.3 Possibility of hazardous reactions**

Risk of ignition or formation of inflammable gases or vapours with:

Metals

Light metals

Possible formation of:

Hydrogen

Violent reactions possible with:

ammonium compounds

Cyanides

organic nitro compounds

organic combustible substances

phenols

powdered alkaline earth metals

Acids

Nitriles

Magnesium

**10.4 Conditions to avoid**

no information available

**10.5 Incompatible materials**

Aluminum, various plastics, Brass, Metals, metal alloys, Zinc, Tin, Light metals, glass, quartzes/silicate ceramics, animal/vegetable tissues

**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****Mixture****Acute toxicity**

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Dermal: No data available

**Skin corrosion/irritation**

Remarks: Necrosis

Mixture causes severe burns.

**Serious eye damage/eye irritation**

Remarks: Mixture causes serious eye damage.

Risk of blindness!

Necrosis

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

**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

**11.2 Additional Information****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.

Irritation and corrosion

Cough

Shortness of breath

collapse

death

Risk of blindness!

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

**Components****sodium hydroxide****Acute toxicity**

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus 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)

Remarks: Causes serious eye damage.



**Respiratory or skin sensitization**

Patch test: - In vitro study

Result: negative

Remarks: (ECHA)

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Acute inhalation toxicity - burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

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**SECTION 12: Ecological information****12.1 Toxicity****Mixture**

No data available

**12.2 Persistence and degradability**

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

No data available

**12.3 Bioaccumulative 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, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (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 effect due to pH shift.

Death of fish possible.



Does not cause biological oxygen deficit.  
Neutralisation possible in waste water treatment plants.  
Discharge into the environment must be avoided.  
No data available

### Components

#### sodium hydroxide

Toxicity to fish	LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Ceriodaphnia (water flea) - 40,4 mg/l - 48 h Remarks: (ECHA)
Toxicity to bacteria	EC50 - Photobacterium phosphoreum - 22 mg/l - 15 min Remarks: (External MSDS)

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 1824	IMDG: 1824	IATA: 1824
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### 14.2 UN proper shipping name

ADR/RID: SODIUM HYDROXIDE SOLUTION
IMDG: SODIUM HYDROXIDE SOLUTION
IATA: Sodium hydroxide solution

### 14.3 Transport hazard class(es)

ADR/RID: 8	IMDG: 8	IATA: 8
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### 14.4 Packaging group

ADR/RID: II	IMDG: II	IATA: II
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### 14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA: no
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### 14.6 Special precautions for user

Tunnel restriction code	: (E)
Further information	: No data available

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has been carried out for this substance.

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**SECTION 16: Other information****Full text of H-Statements**

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.