



# Safety Data Sheet

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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## SECTION 1: Identification

### Product identifier

|                                |   |
|--------------------------------|---|
| Trade name/designation:        | Sodium hydroxide 0.1N Volumetric Solution |
| Product No.:                   | SH01 (63058239, 63058240)                 |
| Synonyms:                      | no data available                         |
| CAS No.:                       | 1310-73-2                                 |
| Other means of identification: |   |

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

|                       |                                    |
|-----------------------|------------------------------------|
| Recommended Use:      | For Further Manufacturing Use Only |
| Uses advised against: | Not for Human or Animal Drug Use   |

### Details of the supplier of the safety data sheet

#### Supplier

##### **VWR International LLC**

|                  |  |
|------------------|--|
| Street           | 100 Matsonford Road Radnor Corporate Center,<br>Building One, Suite 200 P. O. Box 6660 |
| Postal code/city | Radnor, PA 19087   |
| Telephone        | +1-800-932-5000 toll-free within US/Canada<br>+1-610-386-1700                          |
| Telefax          | +1-610-728-2103  |



## Manufacturer

### **VWR Chemicals, LLC**

Street 3 Lincoln Blvd  
Postal code/city Rouses Point, NY 12979

### **Emergency telephone**

Telephone +1-800-424-9300 (Chemtrec, 24 hrs/day, 7 days/week, USA)

### **Preparation Information**

VWR International - Data Compliance

E-mail sds@vwr.com

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

| Hazard classes and hazard categories                 | Hazard statements |
|--|-------------------|
| Substance or mixture corrosive to metals, category 1 | H290              |

### 2.2 Label elements

#### Labelling in accordance with 29 CFR 1910.1200 (OSHA HCS)

#### Hazard pictograms



**Signal word:** Warning

| Hazard statements |                             |
|-------------------|-----------------------------|
| H290              | May be corrosive to metals. |

| Precautionary statements |  |
|--------------------------|--|
| P234                     | Keep only in original container.                                     |
| P390                     | Absorb spillage to prevent material damage.                          |
| P406                     | Store in corrosive resistant container with a resistant inner liner. |

#### Hazards not otherwise classified (HNOC)

none/none





## SECTION 3: Composition / information on ingredients

### 3.1 Substances

not applicable

### 3.2 Mixtures

**Hazardous ingredients Classification according to the OSHA Hazard Communication Standard 29 CFR 1910.1200**

| Substance name   | Concentration | Product identifier | Hazard classes and hazard categories |
|------------------|---------------|--------------------|--------------------------------------|
| Sodium hydroxide | < 0.5%        | CAS No.: 1310-73-2 | Skin Corr. 1A - H314                 |

## SECTION 4: First aid measures

### 4.1 General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

#### After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

#### In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

### 4.2 Most important symptoms/effects, acute and delayed

no data available

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

no data available

### 4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

### 4.5 Information to physician

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

The product itself does not burn.

Co-ordinate fire-fighting measures to the fire surroundings.





**Extinguishing media which must not be used for safety reasons**

no restriction

**5.2 Specific hazards arising from the chemical**

In case of fire may be liberated:  
Pyrolysis products, toxic

**5.3 Advice for firefighters**

DO NOT fight fire when fire reaches explosives.  
Protective equipment and precautions for firefighters:  
Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Do not allow run-off from fire-fighting to enter drains or water courses.  
Do not inhale explosion and combustion gases.  
Use water spray/stream to protect personnel and to cool endangered containers.  
In case of fire: Evacuate area.

**SECTION 6: Accidental release measures**

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

In case of major fire and large quantities: Remove persons to safety.

**6.2 Environmental precautions**

Discharge into the environment must be avoided.

**6.3 Methods and material for containment and cleaning up**

Spilled product must never be returned to the original container for recycling. Collect in closed and suitable containers for disposal.

**6.4 Additional information**

Clear spills immediately.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Avoid: Inhalation Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.

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

Recommended storage temperature: no data available  
Keep container tightly closed and in a well-ventilated place.

**7.3 Specific end use(s)**

no data available





## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

| Ingredient (Designation) | Regulatory information | Country | Limit value type (country of origin) | Limit value         |
|--------------------------|------------------------|---------|--------------------------------------|---------------------|
| Sodium hydroxide         | NIOSH                  | US      | STV                                  | 2 mg/m <sup>3</sup> |
| Sodium hydroxide         | OSHA                   | US      | LTV                                  | 2 mg/m <sup>3</sup> |

### 8.2 Engineering controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

#### Personal protection equipment (PPE)

Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

#### *Eye/face protection*

Eye glasses with side protection

#### *Skin protection*

Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

#### By short-term hand contact

Suitable material: NBR (Nitrile rubber)  
Thickness of the glove material: 0,12 mm  
Breakthrough time (maximum wearing time): > 480 min

#### By long-term hand contact

Suitable material: NBR (Nitrile rubber)  
Thickness of the glove material: 0,38 mm  
Breakthrough time (maximum wearing time): > 480 min

#### *Respiratory protection*

Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

#### *Additional information*

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

#### *Environmental exposure controls*

no data available





## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                      |                   |
|----------------------|-------------------|
| (a) Appearance       |                   |
| Physical state:      | liquid            |
| Color:               | colorless         |
| (b) Odour:           | no data available |
| (c) Odour threshold: | no data available |

#### Safety relevant basic data

|  |                                 |
|--|---------------------------------|
| (d) pH:                                      | no data available               |
| (e) Melting point/freezing point:            | no data available               |
| (f) Initial boiling point and boiling range: | no data available               |
| (g) Flash point:                             | no data available               |
| (h) Evaporation rate:                        | no data available               |
| (i) Flammability (solid, gas):               | not applicable                  |
| (j) Flammability or explosive limits         |                                 |
| Lower explosion limit:                       | no data available               |
| Upper explosion limit:                       | no data available               |
| (k) Vapour pressure:                         | no data available               |
| (l) Vapour density:                          | no data available               |
| (m) Relative density:                        | 1.007 g/cm <sup>3</sup> (20 °C) |
| (n) Solubility(ies)                          |                                 |
| Water solubility (g/L):                      | no data available               |
| Soluble (g/L) in Ethanol:                    | no data available               |
| (o) Partition coefficient: n-octanol/water:  | no data available               |
| (p) Auto-ignition temperature:               | no data available               |
| (q) Decomposition temperature:               | no data available               |
| (r) Viscosity                                |                                 |
| Kinematic viscosity:                         | no data available               |
| Dynamic viscosity:                           | no data available               |
| (s) Explosive properties:                    | not applicable                  |
| (t) Oxidising properties:                    | not applicable                  |

### 9.2 Other information

|                        |                   |
|------------------------|-------------------|
| Bulk density:          | not applicable    |
| Refraction index:      | no data available |
| Dissociation constant: | no data available |
| Surface tension:       | no data available |
| Henry constant:        | 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

no data available

## 10.4 Conditions to avoid

no data available

## 10.5 Incompatible materials

no data available

## 10.6 Hazardous decomposition products

no data available

## 10.7 Additional information

no data available

# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Acute effects

*Acute oral toxicity:*

no data available

*Acute dermal toxicity:*

Sodium hydroxide - LD50: 1350 mg/kg - Rabbit - (IUCLID)

*Acute inhalation toxicity:*

no data available

### Irritant and corrosive effects

*Primary irritation to the skin:*

not applicable

*Irritation to eyes:*

not applicable

*Irritation to respiratory tract:*

not applicable

### Respiratory or skin sensitization

In case of skin contact: not sensitising

After inhalation: not sensitising

### STOT-single exposure

not applicable

### STOT-repeated exposure

not applicable





**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| no data available | ACGIH | IARC | NTP | OSHA |
|-------------------|-------|------|-----|------|
|                   |       |      |     |      |

**Germ cell mutagenicity**

No indications of human germ cell mutagenicity exist.

**Reproductive toxicity**

No indications of human reproductive toxicity exist.

**Aspiration hazard**

not applicable

**Other adverse effects**

no data available

**Additional information**

no data available

**SECTION 12: Ecological information**

**12.1 Ecotoxicity**

**Fish toxicity:**

Sodium hydroxide - LC50: 196 mg/l (96 h) - Adema, D.M.M. 1985. Aquatic Toxicity of Compounds that may be Carried by Ships (Marpol 19733 Annex II). A Progress Report for 1985. Tech.Rep.No.R85/217, TNO, The Hague, Netherlands :40 p.

**Daphnia toxicity:**

Sodium hydroxide - EC50: 40.4 mg/l (48 h) - Warne, M.S.J., and A.D. Schifko 1999. Toxicity of Laundry Detergent Components to a Freshwater Cladoceran and Their Contribution to Detergent Toxicity. Ecotoxicol.Environ.Saf. 44(2):196-206

**Algae toxicity:**

no data available

**Bacteria toxicity:**

no data available

**12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

Partition coefficient: n-octanol/water: no data available

**12.4 Mobility in soil:**

no data available







## 12.5 Results of PBT/vPvB assessment

no data available

## 12.6 Other adverse effects

no data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: no data available

#### Appropriate disposal / Package

Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

#### Additional information

no data available

## SECTION 14: Transport information

### Land transport (DOT)

|                               |                           |
|-------------------------------|---------------------------|
| UN-No.:                       | 1824                      |
| Proper Shipping Name:         | SODIUM HYDROXIDE SOLUTION |
| Class(es):                    | 8                         |
| Classification code:          | C5                        |
| Hazard label(s):              | 8                         |
| Packing group:                | III                       |
| Environmental hazards:        | No                        |
| Marine pollutant:             | No                        |
| Special precautions for user: |                           |

### Sea transport (IMDG)

|  |                           |
|--|---------------------------|
| UN-No.:  | 1824                      |
| Proper Shipping Name:  | SODIUM HYDROXIDE SOLUTION |
| Class(es):   | 8                         |
| Classification code:   |                           |
| Hazard label(s):   | 8                         |
| Packing group:   | III                       |
| Environmental hazards:   | No                        |
| MARINE POLLUTANT:  | no data available         |
| Special precautions for user:  |                           |
| Segregation group:   | 18                        |
| EmS-No.  | F-A S-B                   |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | not relevant              |





## Air transport (ICAO-TI / IATA-DGR)

|                               |                           |
|-------------------------------|---------------------------|
| UN-No.:                       | 1824                      |
| Proper Shipping Name:         | SODIUM HYDROXIDE SOLUTION |
| Class(es):                    | 8                         |
| Classification code:          |                           |
| Hazard label(s):              | 8                         |
| Packing group:                | III                       |
| Special precautions for user: |                           |

## SECTION 15: Regulatory information

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

#### SARA 313 Components

Does not contain listed substances.

#### Massachusetts Right To Know Components

- Sodium hydroxide - CAS No.: 1310-73-2

#### Pennsylvania Right To Know Components

- Sodium hydroxide - CAS No.: 1310-73-2

#### New Jersey Right To Know Components

- Sodium hydroxide - CAS No.: 1310-73-2

#### California Prop. 65 Components

Does not contain listed substances.





## SECTION 16: Other information

### Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists  
DOT - Department of Transportation  
IARC - International Agency for Research on Cancer  
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations  
ICAO-TI - International Civil Aviation Organization-Technical Instructions  
IMDG - International Maritime Code for Dangerous Goods  
LTV - Long Term Value  
NIOSH - National Institute for Occupational Safety and Health  
NTP - National Toxicology Program  
OSHA - Occupational Safety & Health Administration  
PBT - Persistent, Bioaccumulative and Toxic  
PEL - Permissible Exposure Limit  
STV - Short Term Value  
SVHC - Substances of Very High Concern  
TDG - Transport of Dangerous Goods  
TLV - Threshold Limit Value  
vPvB - very Persistent, very Bioaccumulative

### Additional information

Indication of changes:                      general update

*The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guidance. The information in this document is based on the present state knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and his Affiliates shall not be held liable for any damage resulting from handling.*

