

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended 2015/830.

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

### 1.1 Product identifier

**Product name:** Sodium Hydroxide 0,1 mol/l

**Product No.** 5636

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

**Identified uses:** For Laboratory, Research or Manufacturing Use.

**Uses advised against:** Not determined.

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

Avantor Performance Materials Poland S.A.  
 Sowinskiego 11str., 44-101 Gliwice,  
 Poland

**Telephone:** 48 32 239-20-00  
**Fax:** 48 32 239-23-70

**Contact person:** Product Information Compliance  
**E-mail:** export@avantormaterials.com

E-mail address of person responsible for this SDS: SDS@avantormaterials.com

### 1.4 Emergency telephone number: CHEMTREC: (44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

Not classified

### 2.3 Other hazards

No data available.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

| Chemical name    | Concentration | CAS-No.   | EC No.    | REACH Registration No. | M-Factor:          | Notes |
|------------------|---------------|-----------|-----------|------------------------|--------------------|-------|
| Sodium hydroxide | 0,1 - <0,5%   | 1310-73-2 | 215-185-5 | 01-2119457892-27-XXXX  | No data available. | #     |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

**Classification**

| Chemical name    | Classification     | Notes              |
|------------------|--------------------|--------------------|
| Sodium hydroxide | Skin Corr. 1A H314 | No data available. |

The full text for all H-statements is displayed in section 16.

CLP: Regulation No. 1272/2008.

**SECTION 4: First Aid Measures**

**General:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance. Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

**4.1 Description of first aid measures**

**Inhalation:** Move to fresh air. Get medical attention if symptoms persist.

**Skin Contact:** Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before re-use.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance.

**Ingestion:** Rinse mouth thoroughly. Call a POISON CENTRE/doctor if you feel unwell.

**4.2 Most important symptoms and effects, both acute and delayed:** May cause irritation to skin, eyes and respiratory tract.

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

**Hazards:** No data available.

**Treatment:** Treat symptomatically. Symptoms may be delayed.

**SECTION 5: Firefighting Measures**

**General Fire Hazards:** The product is non-combustible.

**5.1 Extinguishing media**

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** None.

**5.2 Special hazards arising from the substance or mixture:** During fire, gases hazardous to health may be formed.

**5.3 Advice for firefighters**

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

**Special protective equipment for firefighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

### SECTION 6: Accidental Release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures:** Keep unauthorised personnel away. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.
- 6.2 Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or on to the ground.
- 6.3 Methods and material for containment and cleaning up:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.
- 6.4 Reference to other sections:** No data available.

### SECTION 7: Handling and Storage:

- 7.1 Precautions for safe handling:** Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Wash hands thoroughly after handling.
- 7.2 Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Store in a cool, dry place. Store in a well-ventilated place.
- 7.3 Specific end use(s):** No data available.

### SECTION 8: Exposure Controls/Personal Protection

#### 8.1 Control Parameters Occupational Exposure Limits

| Chemical name    | Type | Exposure Limit Values | Source   |
|------------------|------|-----------------------|--|
| Sodium hydroxide | STEL | 2 mg/m <sup>3</sup>   | UK. EH40 Workplace Exposure Limits (WELs) (2007) |

#### DNEL-Values

| Critical component | Type               | Route of Exposure | Health Warnings                              | Remarks                       |
|--------------------|--------------------|-------------------|--|-------------------------------|
| Sodium hydroxide   | Workers            | Eyes              | Local effect;                                | No data available             |
|                    |                    | Inhalation        | Systemic, short-term;<br>1 mg/m <sup>3</sup> | Respiratory tract irritation. |
|                    | General population | Eyes              | Local effect;                                | No data available             |
|                    |                    | Inhalation        | Systemic, short-term;<br>1 mg/m <sup>3</sup> | Respiratory tract irritation. |

#### 8.2 Exposure controls

**Appropriate Engineering Controls:** No data available.

**Individual protection measures, such as personal protective equipment**

|                                |   |
|--------------------------------|---|
| <b>General information:</b>    | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| <b>Eye/face protection:</b>    | Use eye protection.   |
| <b>Skin protection</b>         |   |
| <b>Hand Protection:</b>        | Material: Wear protective gloves.   |
| <b>Other:</b>                  | Wear suitable protective clothing.  |
| <b>Respiratory Protection:</b> | In case of inadequate ventilation use suitable respirator.  |
| <b>Hygiene measures:</b>       | No data available.  |
| <b>Environmental Controls:</b> | No data available.  |

## SECTION 9: Physical And Chemical Properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|   |                    |
|---|--------------------|
| <b>Physical state:</b>                          | Liquid             |
| <b>Form:</b>                                    | Liquid             |
| <b>Colour:</b>                                  | Colourless         |
| <b>Odour:</b>                                   | Odourless          |
| <b>Odour Threshold:</b>                         | No data available. |
| <b>pH:</b>                                      | 12 - 13            |
| <b>Freezing point:</b>                          | 0 °C               |
| <b>Boiling Point:</b>                           | 100 °C             |
| <b>Flash Point:</b>                             | Not applicable     |
| <b>Evaporation Rate:</b>                        | No data available. |
| <b>Flammability (solid, gas):</b>               | No data available. |
| <b>Flammability limit - upper (%)</b>           | No data available. |
| <b>Flammability limit - lower (%)</b>           | No data available. |
| <b>Vapour pressure:</b>                         | As water           |
| <b>Vapour density (air=1):</b>                  | No data available. |
| <b>Density:</b>                                 | 1,02 g/ml (20 °C)  |
| <b>Relative density:</b>                        | 1,02 (20 °C)       |
| <b>Solubility(ies)</b>                          |                    |
| <b>Solubility in Water:</b>                     | Completely soluble |
| <b>Solubility (other):</b>                      | No data available. |
| <b>Partition coefficient (n-octanol/water):</b> | No data available. |
| <b>Autoignition Temperature:</b>                | No data available. |
| <b>Decomposition Temperature:</b>               | No data available. |
| <b>Viscosity:</b>                               | No data available. |
| <b>Explosive properties:</b>                    | No data available. |
| <b>Oxidising Properties:</b>                    | No data available. |

## SECTION 10: Stability and Reactivity

|   |   |
|---|---|
| <b>10.1 Reactivity:</b>                         | No data available.                          |
| <b>10.2 Chemical Stability:</b>                 | Material is stable under normal conditions. |
| <b>10.3 Possibility of Hazardous Reactions:</b> | Hazardous polymerization does not occur.    |
| <b>10.4 Conditions to Avoid:</b>                | Contact with incompatible materials.        |
| <b>10.5 Incompatible Materials:</b>             | Acids.                                      |
| <b>10.6 Hazardous Decomposition Products:</b>   | None known.                                 |

|  |
|--|
| <b>SECTION 11: Toxicological Information</b> |
|--|

**Information on likely routes of exposure**

|                      |   |
|----------------------|---|
| <b>Inhalation:</b>   | Spray mists may cause respiratory tract irritation. |
| <b>Skin Contact:</b> | May cause irritation.                               |
| <b>Eye contact:</b>  | May cause temporary eye irritation.                 |
| <b>Ingestion:</b>    | May cause irritation of the gastrointestinal tract. |

**11.1 Information on toxicological effects**

**Acute toxicity**

**Oral**

|   |                      |
|---|----------------------|
| <b>Product:</b>                                   | ATEmix: 65.000 mg/kg |
| <b>Specified substance(s)</b><br>Sodium hydroxide | No data available.   |

**Dermal**

|   |  |
|---|--|
| <b>Product:</b>                                   | Not classified for acute toxicity based on available data. |
| <b>Specified substance(s)</b><br>Sodium hydroxide | No data available.   |

**Inhalation**

|   |  |
|---|--|
| <b>Product:</b>                                   | Not classified for acute toxicity based on available data. |
| <b>Specified substance(s)</b><br>Sodium hydroxide | No data available.   |

**Repeated dose toxicity**

|   |                    |
|---|--------------------|
| <b>Product:</b>                                   | No data available. |
| <b>Specified substance(s)</b><br>Sodium hydroxide | No data available. |

**Skin Corrosion/Irritation:**

|   |                            |
|---|----------------------------|
| <b>Product:</b>                                   | May cause skin irritation. |
| <b>Specified substance(s)</b><br>Sodium hydroxide | No data available.         |

**Serious Eye Damage/Eye Irritation:**

|   |                    |
|---|--------------------|
| <b>Product:</b>                                   | May irritate eyes. |
| <b>Specified substance(s)</b><br>Sodium hydroxide | Corrosive          |

**Respiratory or Skin Sensitisation:**

**Product:** Not a skin sensitiser.  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No mutagenic components identified  
**Specified substance(s)**  
Sodium hydroxide No data available.

**In vivo**

**Product:** No mutagenic components identified  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Carcinogenicity**

**Product:** This substance has no evidence of carcinogenic properties.  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Reproductive toxicity**

**Product:** No components toxic to reproduction  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** None known.  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** None known.  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Aspiration Hazard**

**Product:** Not classified Not classified  
**Specified substance(s)**  
Sodium hydroxide No data available.

**Other Adverse Effects:** None known.

**SECTION 12: Ecological Information**

**12.1 Toxicity**

**Acute toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**

Sodium hydroxide  
LOAEL (Sander lucioperca, 24 h):  $\geq 35$  mg/l  
LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 125 mg/l  
LC 50 (Lepomis macrochirus, 48 h): 99 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**

Sodium hydroxide

LC 50 (Ophryotrocha diadema, 48 h): 33 - 100 mg/l  
 LOAEL (Daphnia magna): 40 - 240 mg/l  
 LC 50 (Cockle, 48 h): 330 - 1.000 mg/l  
 EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 34,59 - 47,13 mg/l  
 EC 50 (Ceriodaphnia sp., 48 h): 40,4 mg/l

**Chronic toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**

Sodium hydroxide

No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**

Sodium hydroxide

No data available.

**Toxicity to aquatic plants**

**Product:** No data available.

**Specified substance(s)**

Sodium hydroxide

No data available.

**12.2 Persistence and Degradability**

**Biodegradation**

**Product:** There is no data on the degradability of this product.

**Specified substance(s)**

Sodium hydroxide

No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Specified substance(s)**

Sodium hydroxide

No data available.

**12.3 Bioaccumulative Potential**

**Product:** No data available on bioaccumulation.

**Specified substance(s)**

Sodium hydroxide

No data available.

**12.4 Mobility in Soil:**

The product is water soluble and may spread in water systems.

**Known or predicted distribution to environmental compartments**

Sodium hydroxide No data available.

**12.5 Results of PBT and vPvB assessment:**

Sodium hydroxide Not available.  
 No data available.

**12.6 Other Adverse Effects:**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**12.7 Additional Information:**

No data available.

## SECTION 13: Disposal Considerations

### 13.1 Waste treatment methods

**General information:** No data available.

**Disposal methods:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

## SECTION 14: Transport Information

### ADR

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN Number:                    | Not regulated. |
| 14.2 UN Proper Shipping Name:      | Not regulated. |
| 14.3 Transport Hazard Class(es)    |                |
| Class:                             | Not regulated. |
| Label(s):                          | Not regulated. |
| Hazard No. (ADR):                  | Not regulated. |
| Tunnel restriction code:           | Not regulated. |
| 14.4 Packing Group:                | Not regulated. |
| 14.5 Environmental Hazards:        | Not regulated. |
| 14.6 Special precautions for user: | Not regulated. |

### RID

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN Number:                    | Not regulated. |
| 14.2 UN Proper Shipping Name       | Not regulated. |
| 14.3 Transport Hazard Class(es)    |                |
| Class:                             | Not regulated. |
| Label(s):                          | Not regulated. |
| 14.4 Packing Group:                | Not regulated. |
| 14.5 Environmental Hazards:        | Not regulated. |
| 14.6 Special precautions for user: | Not regulated. |

### IMDG

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN Number:                    | Not regulated. |
| 14.2 UN Proper Shipping Name:      | Not regulated. |
| 14.3 Transport Hazard Class(es)    |                |
| Class:                             | Not regulated. |
| Label(s):                          | Not regulated. |
| EmS No.:                           | Not regulated. |
| 14.4 Packing Group:                | Not regulated. |
| 14.5 Environmental Hazards:        | Not regulated. |
| 14.6 Special precautions for user: | Not regulated. |
| Not regulated.                     |                |

### IATA



14.1 UN Number: Not regulated.  
 14.2 Proper Shipping Name: Not regulated.  
 14.3 Transport Hazard Class(es)  
     Class: Not regulated.  
     Label(s): Not regulated.  
 14.4 Packing Group: Not regulated.  
 14.5 Environmental Hazards: Not regulated.  
 14.6 Special precautions for user: Not regulated.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

## SECTION 15: Regulatory information

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

#### EU Regulations

**Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:** none

**Regulation (EC) No. 850/2004 on persistent organic pollutants:** none

**Regulation (EC) No. 649/2012 Import and export of dangerous chemicals:** none

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:** none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:** none

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** none

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** none

**Directive 2012/18/EU (Seveso III): on the control of major accident hazards involving dangerous substances:** none

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:** none

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**

| Chemical name    | CAS-No.   | Concentration |
|------------------|-----------|---------------|
| Sodium hydroxide | 1310-73-2 | 0,1 - 1,0%    |

**Listed on the Candidate List of substances of very high concern (SVHC)** Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

**Contains:** none

**15.2 Chemical safety assessment:** No Chemical Safety Assessment has been carried out.

## SECTION 16: Other Information

**Revision Information:** Not relevant.

## References

PBT PBT: persistent, bioaccumulative and toxic substance.  
vPvB vPvB: very persistent and very bioaccumulative substance.

**Key literature references and sources for data:** No data available.

## Wording of the H-statements in sections 2 and 3

H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.

**Training information:** No data available.

**Issue Date:** 01.07.2021

**SDS No.:**

**Disclaimer:**

The information provided in this Safety Data Sheet (SDS) was prepared based on data believed to be accurate as of the date of this SDS. TO THE GREATEST EXTENT PERMITTED BY LAW, AVANTOR PERFORMANCE MATERIALS ("AVANTOR") EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN INCLUDING, WITHOUT LIMITATION, AS TO ACCURACY, COMPLETENESS, FITNESS FOR PURPOSE OR USE, MERCHANTABILITY, NON-INFRINGEMENT, PERFORMANCE, SAFETY, SUITABILITY AND STABILITY. This SDS is intended as a guide to the appropriate use, handling, storage and disposal of the product to which it relates by properly trained personnel, and is not intended to be comprehensive. Users of Avantor's products are advised to perform their own tests and to exercise their own judgment to determine the safety, suitability and appropriate use, handling, storage and disposal of each product and product combination for their own purposes and uses. TO THE GREATEST EXTENT PERMITTED BY LAW, AVANTOR DISCLAIMS LIABILITY FOR, AND BY USING AVANTOR'S PRODUCTS THE PURCHASER AGREES THAT UNDER NO CIRCUMSTANCES SHALL AVANTOR BE LIABLE FOR, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGE OF ANY TYPE OR KIND, INCLUDING WITHOUT LIMITATION, FOR LOSS OF PROFITS, REPUTATIONAL DAMAGE, PRODUCT RECALL OR BUSINESS INTERRUPTION.