



**Neutron<sup>®</sup>Pharmachemical Co.**  
Manufacturer of Laboratory Chemical & Pharmaceutical Materials

**Creation Date** 21-May-2012

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

**Revision Date** 09-Feb-2024

**Revision Number** 10

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Description:** Sodium hydroxide solution 27%  
**Cat No. :** 1.4450

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

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

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

**Company**

**NEUTRON PHARMACHEMICAL CO**  
11, 3th Floor, Borjsaz Building, Azadi Ave,  
Tehran, Iran.  
T-021-66906732-3 F-021-66581408  
www.neutronco.com  
info@neutronco.com

**E-mail address**

1.4. Emergency telephone number 125

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567**

#### **Physical hazards**

Substances/mixtures corrosive to metal

Category 1 (H290)

#### **Health hazards**

Skin Corrosion/Irritation

Category 1 A (H314)

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

Serious Eye Damage/Eye Irritation

Category 1 (H318)

## **Environmental hazards**

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

## **2.2. Label elements**



Signal Word

**Danger**

## **Hazard Statements**

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

## **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

P310 - Immediately call a POISON CENTER or doctor/physician

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

## **2.3. Other hazards**

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### **3.2. Mixtures**

| Component        | CAS No    | EC No     | Weight % | CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|------------------|-----------|-----------|----------|-----------------------------------------------------------------------------------------|
| Sodium hydroxide | 1310-73-2 | 215-185-5 | 32-33    | Met. Corr. 1 (H290)<br>Skin Corr. 1A (H314)<br>Eye Dam. 1 (H318)                        |
| Water            | 7732-18-5 | 231-791-2 | 67-68    | -                                                                                       |

| Component        | Specific concentration limits (SCL's)                                                                                                                | M-Factor | Component notes |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|
| Sodium hydroxide | Skin Corr. 1A :: C ≥ 5%<br>Skin Corr. 1B :: 2% ≤ C < 5%<br>Met. Corr. 1 :: C ≥ 2%<br>Eye Irrit. 2 :: 0.5% ≤ C < 2%<br>Skin Irrit. 2 :: 0.5% ≤ C < 2% | -        | -               |

| Components | Reach Registration Number |
|------------|---------------------------|
|------------|---------------------------|

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

|                  |                  |  |
|------------------|------------------|--|
| Sodium hydroxide | 01-2119457892-27 |  |
|------------------|------------------|--|

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                                           |                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.                                                                                                                                                                                                                              |
| <b>Eye Contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.                                                                                                                                                                                              |
| <b>Skin Contact</b>                       | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.                                                                                                                                        |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.                                                                                                                                                                                           |
| <b>Inhalation</b>                         | If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately. |
| <b>Self-Protection of the First Aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.                                                                                                                                                                               |

### 4.2. Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

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

|                           |                        |
|---------------------------|------------------------|
| <b>Notes to Physician</b> | Treat symptomatically. |
|---------------------------|------------------------|

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### **Suitable Extinguishing Media**

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

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

No information available.

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

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

#### **Hazardous Combustion Products**

Sodium oxides.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep only in the original container.

**Technical Rules for Hazardous Substances (TRGS) 510**      Class 8B  
**Storage Class (LGK) (Germany)**

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### **Exposure limits**

List source(s): **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

| Component        | The United Kingdom       | European Union | Ireland                          |
|------------------|--------------------------|----------------|----------------------------------|
| Sodium hydroxide | 2 mg/m <sup>3</sup> STEL |                | STEL: 2 mg/m <sup>3</sup> 15 min |

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

## Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component                               | Acute effects local<br>(Inhalation) | Acute effects<br>systemic (Inhalation) | Chronic effects local<br>(Inhalation) | Chronic effects<br>systemic (Inhalation) |
|-----------------------------------------|-------------------------------------|----------------------------------------|---------------------------------------|------------------------------------------|
| Sodium hydroxide<br>1310-73-2 ( 32-33 ) |                                     |                                        | DNEL = 1mg/m <sup>3</sup>             |                                          |

## Predicted No Effect Concentration (PNEC)

No information available.

## 8.2. Exposure controls

### Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

#### Eye Protection

Goggles (European standard - EN 166)

#### Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments                                                                 |
|----------------|-------------------|-----------------|-------------|--------------------------------------------------------------------------------|
| Neoprene       | > 480 minutes     | 0.45 mm         | Level 6     | As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| Butyl rubber   | > 480 minutes     | 0.35 mm         | EN 374      |                                                                                |
| Nitrile rubber | > 480 minutes     | 0.35 mm         |             |                                                                                |
| Viton (R)      | > 480 minutes     | 0.30 mm         |             |                                                                                |

#### Skin and body protection

Long sleeved clothing.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

#### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** Particulates filter conforming to EN 143

#### Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001  
When RPE is used a face piece Fit Test should be conducted

#### Environmental exposure controls

Prevent product from entering drains.

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|                                         |                          |                                   |
|-----------------------------------------|--------------------------|-----------------------------------|
| Physical State                          | Liquid                   |                                   |
| Appearance                              | Colorless                |                                   |
| Odor                                    | Odorless                 |                                   |
| Odor Threshold                          | No data available        |                                   |
| Melting Point/Range                     | 8 °C / 46.4 °F           |                                   |
| Softening Point                         | No data available        |                                   |
| Boiling Point/Range                     | 120 °C / 248 °F          |                                   |
| Flammability (liquid)                   | No data available        |                                   |
| Flammability (solid,gas)                | Not applicable           | Liquid                            |
| Explosion Limits                        | No data available        |                                   |
| Flash Point                             | No information available | Method - No information available |
| Autoignition Temperature                | No data available        |                                   |
| Decomposition Temperature               | No data available        |                                   |
| pH                                      | 14                       |                                   |
| Viscosity                               | No data available        |                                   |
| Water Solubility                        | Soluble                  |                                   |
| Solubility in other solvents            | No information available |                                   |
| Partition Coefficient (n-octanol/water) |                          |                                   |
| Vapor Pressure                          | No data available        |                                   |
| Density / Specific Gravity              | 1.36                     |                                   |
| Bulk Density                            | Not applicable           | Liquid                            |
| Vapor Density                           | No data available        | (Air = 1.0)                       |
| Particle characteristics                | Not applicable (liquid)  |                                   |

### 9.2. Other information

|                      |               |
|----------------------|---------------|
| Oxidizing Properties | Not oxidising |
|----------------------|---------------|

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Yes  
Contact with metals may evolve flammable hydrogen gas

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

|                          |                                          |
|--------------------------|------------------------------------------|
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions      | None under normal processing.            |

### 10.4. Conditions to avoid

Exposure to air. Incompatible products.

### 10.5. Incompatible materials

Acids. Organic materials. Metals. Aluminium. copper. Zinc.

### 10.6. Hazardous decomposition products

Sodium oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Product Information** No acute toxicity information is available for this product

**(a) acute toxicity;**

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

## Toxicology data for the components

| Component        | LD50 Oral               | LD50 Dermal           | LC50 Inhalation |
|------------------|-------------------------|-----------------------|-----------------|
| Sodium hydroxide | 140 - 340 mg/kg ( Rat ) | 1350 mg/kg ( Rabbit ) | -               |
| Water            | -                       | -                     | -               |

**(b) skin corrosion/irritation;** Category 1 A

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**

Respiratory

No data available

Skin

No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;** No data available

There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

Target Organs

No information available.

**(j) aspiration hazard;** Based on available data, the classification criteria are not met

**Symptoms / effects, both acute and delayed**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

## 11.2. Information on other hazards

### Endocrine Disrupting Properties

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants. Large amounts will affect pH and harm aquatic organisms. Contains a substance which is: Harmful to aquatic organisms. The product

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

contains following substances which are hazardous for the environment.

| Component        | Freshwater Fish                                        | Water Flea | Freshwater Algae |
|------------------|--------------------------------------------------------|------------|------------------|
| Sodium hydroxide | LC50: = 45.4 mg/L, 96h static<br>(Oncorhynchus mykiss) |            |                  |

## 12.2. Persistence and degradability

### Persistence

Soluble in water, Persistence is unlikely, based on information available, Miscible with water.

### Degradability

Not relevant for inorganic substances.

### Degradation in sewage treatment plant

Neutralization is normally necessary before waste water is discharged into water treatment plants. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

## 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

## 12.4. Mobility in soil

The product is water soluble, and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

## 12.5. Results of PBT and vPvB assessment

No data available for assessment.

## 12.6. Endocrine disrupting properties

### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 12.7. Other adverse effects

### Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

#### European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

#### Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with high pH-value must be neutralized before discharge.

## SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

**14.1. UN number** UN1824  
**14.2. UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es)** 8  
**14.4. Packing group** II

## ADR

**14.1. UN number** UN1824  
**14.2. UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es)** 8  
**14.4. Packing group** II

## IATA

**14.1. UN number** UN1824  
**14.2. UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es)** 8  
**14.4. Packing group** II

**14.5. Environmental hazards** No hazards identified

**14.6. Special precautions for user** No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component        | CAS No    | EINECS    | ELINCS | NLP | IECSC | TCSI | KECL     | ENCS | ISHL |
|------------------|-----------|-----------|--------|-----|-------|------|----------|------|------|
| Sodium hydroxide | 1310-73-2 | 215-185-5 | -      | -   | X     | X    | KE-31487 | X    | X    |
| Water            | 7732-18-5 | 231-791-2 | -      | -   | X     | X    | KE-35400 | X    | -    |

| Component        | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|------------------|-----------|------|-----------------------------------------------|-----|------|------|-------|-------|
| Sodium hydroxide | 1310-73-2 | X    | ACTIVE                                        | X   | -    | X    | X     | X     |
| Water            | 7732-18-5 | X    | ACTIVE                                        | X   | -    | X    | X     | X     |

**Legend:** X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### Authorisation/Restrictions according to EU REACH

| Component        | CAS No    | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|------------------|-----------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Sodium hydroxide | 1310-73-2 | -                                                                   | Use restricted. See item 75. (see link for restriction details)               | -                                                                                                     |
| Water            | 7732-18-5 | -                                                                   | -                                                                             | -                                                                                                     |

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

## Seveso III Directive (2012/18/EC)

| Component        | CAS No    | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|------------------|-----------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Sodium hydroxide | 1310-73-2 | Not applicable                                                                            | Not applicable                                                                           |
| Water            | 7732-18-5 | Not applicable                                                                            | Not applicable                                                                           |

## Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

## Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## WGK Classification

Water endangering class = 1 (self classification)

| Component        | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|------------------|---------------------------------------|-------------------------|
| Sodium hydroxide | WGK1                                  |                         |

| Component                               | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Sodium hydroxide<br>1310-73-2 ( 32-33 ) | Prohibited and Restricted Substances                                                                           |                                                                                 |                                                                                             |

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

# SAFETY DATA SHEET

Sodium hydroxide solution 27%

Revision Date 09-Feb-2024

KECL - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

**Creation Date** 21-May-2012

**Revision Date** 09-Feb-2024

**Revision Summary** Not applicable.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**