

# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)



## Sodium hydroxide solution 50 %, extra pure

article number: **8655**  
Version: **1.0 en**

date of compilation: 19.08.2021

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

#### 1.1 Product identifier

|                                 |   |
|---------------------------------|---|
| Identification of the substance | <b>Sodium hydroxide solution</b> 50 %, extra pure |
| Article number                  | 8655  |
| Registration number (REACH)     | not relevant (mixture)                            |

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

|                           |   |
|---------------------------|---|
| Relevant identified uses: | Laboratory chemical<br>Laboratory and analytical use  |
| Uses advised against:     | Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). |

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** sicherheit@carlroth.de  
**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** **sicherheit@carlroth.de**

#### 1.4 Emergency telephone number

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class                             | Cat-egory | Hazard class and category | Hazard statement |
|---------|--|-----------|---------------------------|------------------|
| 2.16    | Substance or mixture corrosive to metals | 1         | Met. Corr. 1              | H290             |
| 3.2     | Skin corrosion/irritation                | 1A        | Skin Corr. 1A             | H314             |
| 3.3     | Serious eye damage/eye irritation        | 1         | Eye Dam. 1                | H318             |

For full text of abbreviations: see SECTION 16

#### The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

#### 2.2 Label elements

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### Labelling according to Regulation (EC) No 1272/2008 (CLP)

**Signal word**                      **Danger**

### Pictograms

GHS05



### Hazard statements

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

### Precautionary statements

#### Precautionary statements - prevention

P280                                      Wear protective gloves/protective clothing/eye protection/face protection/hearing protection

#### Precautionary statements - response

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

**Hazardous ingredients for labelling:**                                      Sodium hydroxide

### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



H314                                      Causes severe skin burns and eye damage.  
P280                                      Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P303+P361+P353                      IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
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/doctor.  
contains:                                      Sodium hydroxide

## 2.3 Other hazards

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

not relevant (mixture)

#### 3.2 Mixtures

##### Description of the mixture

| Name of substance | Identifier  | Wt%     | Classification acc. to GHS                                       | Pictograms | Notes  |
|-------------------|---|---------|--|------------|--------|
| Sodium hydroxide  | CAS No<br>1310-73-2<br><br>EC No<br>215-185-5<br><br>Index No<br>011-002-00-6<br><br>REACH Reg. No<br>01-2119457892-<br>27-xxxx | 40 – 50 | Met. Corr. 1 / H290<br>Skin Corr. 1A / H314<br>Eye Dam. 1 / H318 |            | GHS-HC |

##### Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

| Name of substance | Identifier  | Specific Conc. Limits   | M-Factors | ATE | Exposure route |
|-------------------|---|---|-----------|-----|----------------|
| Sodium hydroxide  | CAS No<br>1310-73-2<br><br>EC No<br>215-185-5<br><br>Index No<br>011-002-00-6 | Skin Corr. 1A; H314: $C \geq 5\%$<br>Skin Corr. 1B; H314: $2\% \leq C < 5\%$<br>Skin Irrit. 2; H315: $0,5\% \leq C < 2\%$<br>Eye Dam. 1; H318: $C \geq 2\%$<br>Eye Irrit. 2; H319: $0,5\% \leq C < 2\%$ | -         | -   |                |

For full text of abbreviations: see SECTION 16

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

##### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following skin contact

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

##### Following 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.

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### Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

Corrosion, Cough, Breathing difficulties, Gastric perforation, Risk of serious damage to eyes, Risk of blindness

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Non-combustible.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

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### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handle and open container with care. Clear contaminated areas thoroughly.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed. Keep only in original container.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Data are not available.

| Relevant DNELs of components of the mixture |           |           |                     |                                    |                   |                            |
|---|-----------|-----------|---------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No    | End-point | Threshold level     | Protection goal, route of exposure | Used in           | Exposure time              |
| Sodium hydroxide                            | 1310-73-2 | DNEL      | 1 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| Sodium hydroxide                            | 1310-73-2 | DNEL      | 1 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - local effects    |

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection. Wear face protection.

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### Skin protection



#### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

NBR (Nitrile rubber)

#### • material thickness

≥0,3 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

#### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. P2 (filters at least 94 % of airborne particles, colour code: White).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|  |                 |
|--|-----------------|
| Physical state   | liquid          |
| Colour   | colourless      |
| Odour  | odourless       |
| Melting point/freezing point                             | 12 °C           |
| Boiling point or initial boiling point and boiling range | 142 °C          |
| Flammability   | non-combustible |
| Lower and upper explosion limit                          | not determined  |
| Flash point  | not determined  |

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|                           |  |
|---------------------------|--|
| Auto-ignition temperature | not determined                           |
| Decomposition temperature | not relevant                             |
| pH (value)                | 14 (in aqueous solution: 500 g/l, 20 °C) |
| Kinematic viscosity       | 51,63 mm <sup>2</sup> /s at 20 °C        |

### Solubility(ies)

Water solubility miscible in any proportion

### Partition coefficient

Partition coefficient n-octanol/water (log value): not relevant (inorganic)

Vapour pressure not determined

Density 1,53 g/cm<sup>3</sup> at 20 °C

Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes:

Corrosive to metals category 1: corrosive to metals

Other safety characteristics:

Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Substance or mixture corrosive to metals.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Exothermic reaction with:** Acids,

**Violent reaction with:** Aluminium, Metals, Ammonium compounds, Nitriles, Nitro compound, Organic substances, Phenols, Strong acid

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

different plastics, metals, aluminium, zinc, tin

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### Release of flammable materials with

Light metals (due to the release of hydrogen in an acid/alkaline medium).

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

##### Skin corrosion/irritation

Causes severe skin burns and eye damage.

##### Serious eye damage/eye irritation

Causes serious eye damage.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

##### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

#### • If in eyes

causes burns, Causes serious eye damage, risk of blindness

#### • If inhaled

cough, pain, choking, and breathing difficulties, irritant effects, pulmonary oedema



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- **If on skin**

causes severe burns, causes poorly healing wounds

- **Other information**

Other adverse effects: Circulatory collapse

### 11.2 Endocrine disrupting properties

None of the ingredients are listed.

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

| Aquatic toxicity (acute) of components of the mixture |           |          |           |                      |               |
|---|-----------|----------|-----------|----------------------|---------------|
| Name of substance                                     | CAS No    | Endpoint | Value     | Species              | Exposure time |
| Sodium hydroxide                                      | 1310-73-2 | EC50     | 40,4 mg/l | water flea (Daphnia) | 48 h          |

### Biodegradation

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

### 12.2 Process of degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

None of the ingredients are listed.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

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### Sewage disposal-relevant information

Do not empty into drains.

### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

### 14.1 UN number or ID number

|             |         |
|-------------|---------|
| ADR/RID/ADN | UN 1824 |
| IMDG-Code   | UN 1824 |
| ICAO-TI     | UN 1824 |

### 14.2 UN proper shipping name

|             |                           |
|-------------|---------------------------|
| ADR/RID/ADN | SODIUM HYDROXIDE SOLUTION |
| IMDG-Code   | SODIUM HYDROXIDE SOLUTION |
| ICAO-TI     | Sodium hydroxide solution |

### 14.3 Transport hazard class(es)

|             |   |
|-------------|---|
| ADR/RID/ADN | 8 |
| IMDG-Code   | 8 |
| ICAO-TI     | 8 |

### 14.4 Packing group

|             |    |
|-------------|----|
| ADR/RID/ADN | II |
| IMDG-Code   | II |
| ICAO-TI     | II |

### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

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### Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

|   |   |
|---|---|
| Proper shipping name  | SODIUM HYDROXIDE SOLUTION                     |
| Particulars in the transport document   | UN1824, SODIUM HYDROXIDE SOLUTION, 8, II, (E) |
| Classification code   | C5  |
| Danger label(s)   | 8   |
|  |   |
| Excepted quantities (EQ)  | E2  |
| Limited quantities (LQ)   | 1 L   |
| Transport category (TC)   | 2   |
| Tunnel restriction code (TRC)   | E   |
| Hazard identification No  | 80  |

### International Maritime Dangerous Goods Code (IMDG) - Additional information

|  |  |
|--|--|
| Proper shipping name                     | SODIUM HYDROXIDE SOLUTION                |
| Particulars in the shipper's declaration | UN1824, SODIUM HYDROXIDE SOLUTION, 8, II |
| Marine pollutant                         | -  |
| Danger label(s)                          | 8  |



|                          |              |
|--------------------------|--------------|
| Special provisions (SP)  | -            |
| Excepted quantities (EQ) | E2           |
| Limited quantities (LQ)  | 1 L          |
| EmS                      | F-A, S-B     |
| Stowage category         | A            |
| <b>Segregation group</b> | 18 - Alkalis |

### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

|  |  |
|--|--|
| Proper shipping name                     | Sodium hydroxide solution                |
| Particulars in the shipper's declaration | UN1824, Sodium hydroxide solution, 8, II |
| Danger label(s)                          | 8  |



|                          |       |
|--------------------------|-------|
| Special provisions (SP)  | A3    |
| Excepted quantities (EQ) | E2    |
| Limited quantities (LQ)  | 0,5 L |

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### SECTION 15: Regulatory information

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

##### Relevant provisions of the European Union (EU)

##### Restrictions according to REACH, Annex XVII

none of the ingredients are listed

| Dangerous substances with restrictions (REACH, Annex XVII) |  |        |             |    |
|--|--|--------|-------------|----|
| Name of substance  | Name acc. to inventory   | CAS No | Restriction | No |
| Sodium hydroxide solution                                  | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | R3          | 3  |

##### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter fluid may lead to life threatening lung damage";
    - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;

##### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed. (Or Concentration of the substance in a mixture: <0.1 % Mass concentration)

##### Seveso Directive

| 2012/18/EU (Seveso III) |                                       |   |       |
|-------------------------|---------------------------------------|---|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |   |       |

##### Deco-Paint Directive

|             |              |
|-------------|--------------|
| VOC content | 0 %<br>0 g/l |
|-------------|--------------|

##### Industrial Emissions Directive (IED)

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|   |       |
|---|-------|
| VOC content                                 | 0 %   |
| VOC content<br>Water content was discounted | 0 g/l |

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

### Water Framework Directive (WFD)

| List of pollutants (WFD) |                            |        |           |         |
|--------------------------|----------------------------|--------|-----------|---------|
| Name of substance        | Name acc. to inventory     | CAS No | Listed in | Remarks |
| Sodium hydroxide         | Metals and their compounds |        | A)        |         |

#### Legend

A) Indicative list of the main pollutants

### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

### National inventories

| Country | Inventory  | Status                         |
|---------|------------|--------------------------------|
| AU      | AICS       | all ingredients are listed     |
| CA      | DSL        | all ingredients are listed     |
| CN      | IECSC      | all ingredients are listed     |
| EU      | ECSI       | all ingredients are listed     |
| EU      | REACH Reg. | all ingredients are listed     |
| JP      | CSCL-ENCS  | all ingredients are listed     |
| KR      | KECI       | all ingredients are listed     |
| MX      | INSQ       | all ingredients are listed     |
| NZ      | NZIoC      | all ingredients are listed     |
| PH      | PICCS      | all ingredients are listed     |
| TR      | CICR       | not all ingredients are listed |

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| Country | Inventory | Status                     |
|---------|-----------|----------------------------|
| TW      | TCSI      | all ingredients are listed |
| US      | TSCA      | all ingredients are listed |

### Legend

|            |   |
|------------|---|
| AICS       | Australian Inventory of Chemical Substances                             |
| CICR       | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)  |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances   |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act   |

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| ADN         | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR         | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)   |
| ADR/RID/ADN | Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)   |
| ATE         | Acute Toxicity Estimate   |
| CAS         | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP         | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR         | Dangerous Goods Regulations (see IATA/DGR)  |
| DNEL        | Derived No-Effect Level   |
| EC50        | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval                                      |
| EC No       | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS      | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS      | European List of Notified Chemical Substances   |
| EmS         | Emergency Schedule  |
| Eye Dam.    | Seriously damaging to the eye   |
| Eye Irrit.  | Irritant to the eye   |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |

# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)



## Sodium hydroxide solution 50 %, extra pure

article number: **8655**

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| ICAO-TI     | Technical instructions for the safe transport of dangerous goods by air   |
| IMDG        | International Maritime Dangerous Goods Code   |
| IMDG-Code   | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| Met. Corr.  | Substance or mixture corrosive to metals  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| SVHC        | Substance of Very High Concern  |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.  
Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture.

Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text                                     |
|------|--|
| H290 | May be corrosive to metals.              |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage.               |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.