



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 19.11.2012

Version 2.1

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

### 1.1 Product identifier

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®  
REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses Reagent for analysis  
For additional information on uses please refer to the Merck Chemicals portal ([www.merck-chemicals.com](http://www.merck-chemicals.com)).

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

Responsible Department EQ-RS \* e-mail: [prodsafe@merckgroup.com](mailto:prodsafe@merckgroup.com)  
Regional representation Merck Chemicals Ltd \* Boulevard Industrial Park \* Padge Road \*  
Beeston \* Nottingham \* NG9 2JR \* Tel. 01159 430840 \*  
[information@merckchem.co.uk](mailto:information@merckchem.co.uk).

1.4 Emergency telephone number +49 (0) 6151 722440

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1, H290  
Skin corrosion, Category 1A, H314

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

Classification (67/548/EEC or 1999/45/EC)

C Corrosive R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Danger

Hazard statements

H290 May be corrosive to metals.

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

H314 Causes severe skin burns and eye damage.

*Precautionary statements*

Prevention

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

Response

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.

P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

**Reduced labelling (≤125 ml)**

*Hazard pictograms*



*Signal word*

Danger

*Hazard statements*

H314 Causes severe skin burns and eye damage.

*Precautionary statements*

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

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.

P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

**Labelling (67/548/EEC or 1999/45/EC)**

*Symbol(s)*  C Corrosive

*R-phrase(s)* 35 Causes severe burns.

*S-phrase(s)* 26-37/39-45 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**2.3 Other hazards**

None known.

---

**SECTION 3. Composition/information on ingredients**

Chemical nature Aqueous solution

**3.1 Substance**

not applicable

**3.2 Mixture**

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

**Hazardous components (REGULATION (EC) No 1272/2008)**

*Chemical Name (Concentration)*

CAS-No.	Registration number	Classification
<i>sodium hydroxide (&gt;= 25 % - &lt; 50 % )</i>		
1310-73-2	*)	Skin corrosion, Category 1A, H314 Corrosive to metals, Category 1, H290

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

**Hazardous components (1999/45/EC)**

*Chemical Name (Concentration)*

CAS-No.	Classification
<i>sodium hydroxide (&gt;= 25 % - &lt; 50 % )</i>	
1310-73-2	C, Corrosive; R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

---

**SECTION 4. First aid measures**

**4.1 Description of first aid measures**

*General advice*

First aider needs to protect himself.

After inhalation: fresh air. Call in physician.

After skin contact: wash off with plenty of water. Immediately remove contaminated clothing. If available swab with polyethylene glycol 400. Call a physician immediately.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

Irritation and corrosion, Cough, Shortness of breath, collapse, death  
Risk of blindness!

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

No information available.

---

**SECTION 5. Firefighting measures**

**5.1 Extinguishing media**

*Suitable extinguishing media*

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

*Unsuitable extinguishing media*

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

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

Not combustible.

Ambient fire may liberate hazardous vapours.

**5.3 Advice for firefighters**

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

**SECTION 6. Accidental release measures**

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

**6.2 Environmental precautions**

Do not empty into drains.

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

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® OH<sup>-</sup>, Merck Art. No. 101596). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**

Indications about waste treatment see section 13.

---

**SECTION 7. Handling and storage**

**7.1 Precautions for safe handling**

*Advice on safe handling*

Observe label precautions.

*Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

*Storage conditions*

Requirements for storage areas and containers

No aluminium, tin, or zinc containers.

Tightly closed.

Store at +15°C to +25°C.

**7.3 Specific end use(s)**

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

---

**SECTION 8. Exposure controls/personal protection**

**8.1 Control parameters**

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

**Components with workplace control parameters**

*Components*

Basis	Value	Threshold limits	Remarks
<i>sodium hydroxide (1310-73-2)</i>			
EH40 WEL	Short Term Exposure Limit (STEL):	2 mg/m <sup>3</sup>	

**Recommended monitoring procedures**

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

**8.2 Exposure controls**

**Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

**Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection*

Tightly fitting safety goggles

*Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

*Other protective equipment*

protective clothing

*Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not empty into drains.

---

**SECTION 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Form	liquid
Colour	colourless
Odour	odourless
Odour Threshold	not applicable
pH	ca. 14 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapor density	No information available.
Relative density	1.33 g/cm <sup>3</sup> at 20 °C
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

Oxidizing properties none

**9.2 Other data**

Corrosion May be corrosive to metals.

---

**SECTION 10. Stability and reactivity**

**10.1 Reactivity**

See section 10.3

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

**10.3 Possibility of hazardous reactions**

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

Metals, Light metals

Possible formation of:

Hydrogen

Violent reactions possible with:

Nitriles, ammonium compounds, Cyanides, magnesium, organic nitro compounds, organic combustible substances, phenols, oxidisable substances, powdered alkaline earth metals, acids

**10.4 Conditions to avoid**

no information available

**10.5 Incompatible materials**

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

**10.6 Hazardous decomposition products**

no information available

---

**SECTION 11. Toxicological information**

**11.1 Information on toxicological effects**

**Mixture**

*Acute oral toxicity*

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

*Acute inhalation toxicity*

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

*Acute dermal toxicity*

This information is not available.

*Skin irritation*

Necrosis

Mixture causes severe burns.

*Eye irritation*

Mixture causes serious eye damage. Necrosis Risk of blindness!

---

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

*Sensitisation*

This information is not available.

*Germ cell mutagenicity*

This information is not available.

*Carcinogenicity*

This information is not available.

*Reproductive toxicity*

This information is not available.

*Teratogenicity*

Did not show teratogenic effects in animal experiments. (anhydrous substance) (Lit.)

*Specific target organ toxicity - single exposure*

This information is not available.

*Specific target organ toxicity - repeated exposure*

This information is not available.

*Aspiration hazard*

This information is not available.

## 11.2 Further information

Quantitative data on the toxicity of this product are not available.

Further toxicological data:

Systemic effects:

collapse, death

Further data:

Handle in accordance with good industrial hygiene and safety practice.

## Components

### *sodium hydroxide*

*Acute oral toxicity*

LD50 rat: 1,350 mg/kg (IUCLID)

*Skin irritation*

rabbit

Result: Causes burns.

(RTECS)

*Eye irritation*

rabbit

Result: Causes burns.

(RTECS)

*Germ cell mutagenicity*

*Genotoxicity in vitro*

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(Lit.)

Ames test

Result: negative

(IUCLID)

*Teratogenicity*

Did not show teratogenic effects in animal experiments. (Lit.)

---

## SECTION 12. Ecological information

### Mixture

#### 12.1 Toxicity



SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

No information available.

**12.2 Persistence and degradability**

*Biodegradability*

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

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects**

*Additional ecological information*

Biological effects:

Harmful effect due to pH shift. Death of fish possible. Does not cause biological oxygen deficit.

Neutralisation possible in waste water treatment plants.

Further information on ecology

Discharge into the environment must be avoided.

**Components**

*sodium hydroxide*

*Toxicity to fish*

LC50 Oncorhynchus mykiss (rainbow trout): 45.4 mg/l; 96 h (50% solution) (IUCLID)

*Toxicity to daphnia and other aquatic invertebrates*

EC50 Daphnia magna (Water flea): 76 mg/l; 24 h (50% solution) (External MSDS)

*Biodegradability*

The methods for determining biodegradability are not applicable to inorganic substances.

*Bioaccumulation*

(Bioaccumulation is unlikely.)

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

---

**SECTION 13. Disposal considerations**

*Waste treatment methods*

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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

---

**SECTION 14. Transport information**

**Land transport (ADR/RID)**

14.1 UN number UN 1824  
14.2 Proper shipping name SODIUM HYDROXIDE SOLUTION  
14.3 Class 8  
14.4 Packing group II  
14.5 Environmentally hazardous --  
14.6 Special precautions for user yes  
Tunnel restriction code E

**Inland waterway transport (ADN)**

Not relevant

**Air transport (IATA)**

14.1 UN number UN 1824  
14.2 Proper shipping name SODIUM HYDROXIDE SOLUTION  
14.3 Class 8  
14.4 Packing group II  
14.5 Environmentally hazardous --  
14.6 Special precautions for user no

**Sea transport (IMDG)**

14.1 UN number UN 1824  
14.2 Proper shipping name SODIUM HYDROXIDE SOLUTION  
14.3 Class 8  
14.4 Packing group II  
14.5 Environmentally hazardous --  
14.6 Special precautions for user yes  
EmS F-A S-B

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not relevant

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006

Catalogue No. 105589  
Product name Sodium hydroxide solution 30% Suprapur®

---

---

**SECTION 15. Regulatory information**

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

*EU regulations*

Major Accident Hazard 96/82/EC  
Legislation Directive 96/82/EC does not apply

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

*National legislation*

Storage class 8B

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

---

**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.

**Full text of R-phrases referred to under sections 2 and 3**

R35 Causes severe burns.

**Training advice**

Provide adequate information, instruction and training for operators.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*