

Sodium hydroxide solution

71463-1L


Version 1.4

Revision Date 17.12.2022

Corrosive to metals Category 1
H290 May be corrosive to metals.
Skin corrosion Category 1B
H314 Causes severe skin burns and eye damage.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.
Precautionary statements	:	P234 Keep only in original container. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Hazardous components which must be listed on the label	:	Sodium hydroxide

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2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Sodium hydroxide	1310-73-2 011-002-00-6 215-185-5	Met. Corr. 1; H290 Skin Corr. 1A; H314	>= 2 % - < 5 %	Skin Corr. 1A; H314:>= 5 % Skin Corr. 1B; H314:2 - < 5 % Eye Irrit. 2; H319:0,5 - < 2 % Skin Irrit. 2; H315:0,5 - < 2 %

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable limits.

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements 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. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

If inhaled, remove to fresh air. Call a physician.

Skin contact:

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Wash off immediately with plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

Eye contact:

Protect unharmed eye. Rinse thoroughly with plenty of water, also under the eyelids. Call a physician immediately.

Ingestion:

When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray jet
Dry powder
Foam
Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Material can create slippery conditions.
The product itself does not burn.

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5.3. Advice for firefighters

No unprotected exposed skin areas.
Wear self-contained breathing apparatus and protective suit.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Evacuate personnel to safe areas. Avoid contact with skin and eyes.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers
Spilling onto the container's outside will make container slippery.

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary. Always have on hand a first-aid kit, together with proper instructions. Plan first aid action before beginning work with this product. Wear personal protective equipment.

Advice on protection against fire and explosion:

The product itself does not burn. Normal measures for preventive fire protection. Contact with metals liberates hydrogen gas.

Hygiene measures:

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Take off all contaminated clothing immediately. Separate rooms are required for washing, showering and changing clothes. Keep working clothes separately. Wash hands before breaks and at the end of workday. Recommended preventive skin protection

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from physical damage.

Further information on storage conditions:

Store in original container. Store in unbreakable, closable containers. Containers should be protected against falling down. Do not leave vessels/containers open. Avoid product residues in/on containers.

Advice on common storage:

Do not store near acids. Keep away from metals.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
Sodium hydroxide	EH40 WEL STEL	2 mg/m ³		
Sodium hydroxide	EH40 WEL			Listed

STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Sodium hydroxide	Workers /		1 mg/m ³	Inhalation	

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	Long-term local effects				
Sodium hydroxide	Consumers / Long-term local effects		1 mg/m3	Inhalation	

No PNEC data available.

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Engineering measures

Perform filling operations only at stations with exhaust ventilation facilities.
Emergency sprinkling nozzle

Personal protective equipment

Respiratory protection:

In the case of vapour formation use a respirator with an approved filter.

Hand protection:

Glove material: Natural Latex
Break through time: > 480 min
Glove thickness: 0,6 mm
Lapren®706
Gloves must be inspected prior to use.
Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer´s directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

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Eye protection:

Safety goggles

Skin and body protection:

Wear suitable protective equipment.
complete suit protecting against chemicals
Lab coat

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Colour	: colourless
Odour	: odourless
molecular weight	: 40 g/mol
Melting point/range	: < 0 °C
Boiling point/boiling range	: > 100 °C
Flammability	: Not applicable
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No decomposition if used as directed.
pH	: alkaline

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Auto-ignition temperature	:	not auto-flammable
Viscosity, kinematic	:	No data available
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	similar to water
Density	:	ca. 1,04 g/cm ³ at 20 °C
Bulk density	:	Not applicable

9.2 Other Information

Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Corrosive to metals	:	Corrosive to metals
Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

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Exothermic reaction with strong acids.
Corrosive in contact with metals

10.4. Conditions to avoid

Protect from contamination.
Exposure to air.

10.5. Incompatible materials

Gives off hydrogen by reaction with metals.
Exothermic reaction with strong acids.

10.6. Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Acute dermal toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Acute inhalation toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Skin irritation:

Classification based on Annex VI of regulation 1272/2008/EC.

Eye irritation:

Classification based on Annex VI of regulation 1272/2008/EC.

Respiratory or skin sensitisation:

Route of exposure: Skin contact

Species: Humans

Result: Does not cause skin sensitisation.

Reproductive toxicity:

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Remarks: Not classified

Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
Not classified due to data which are conclusive although insufficient for classification.

Toxicity to aquatic plants:
Not classified due to data which are conclusive although insufficient for classification.

Toxicity to aquatic invertebrates:
EC50
Species: Ceriodaphnia spec
Value: 40,4 mg/l
Exposure time: 48 h
Test substance: anhydrous substance

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

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No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:1824

IMDG:1824

IATA:1824

14.2 UN proper shipping name

ADR/RID:SODIUM HYDROXIDE SOLUTION

IMDG:SODIUM HYDROXIDE SOLUTION

IATA:Sodium hydroxide solution

14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

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ADR/RID: no

Marine pollutant: no

14.6 Special precautions for user

IMDG Code segregation group (SGG18) – ALKALIS,

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC		Not applicable
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606

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France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Gifftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

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China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Sodium hydroxide : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very bioaccumulative substance
PBT Persistent, bioaccumulative und toxic substance

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

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materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.
