according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783 Version: 5.0 en Replaces version of: 2022-09-05 Version: (4)

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

Product identifier 1.1

Identification of the substance

Article number

Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

6783

Registration number (REACH)

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

Relevant identified uses:

Uses advised against:

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 :Department Health, Safety and Environment sheet:

e-mail (competent person):

sicherheit@carlroth.de

1.4 **Emergency telephone number**

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Centre Beaumont Hospital	Beaumont Road	Dublin 9	+353 1 809 2166	https:// www.poisons.ie/

SECTION 2: Hazards identification

Classification of the substance or mixture 2.1

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

For full text of abbreviations: see SECTION 16

2.2 Label elements



not relevant (mixture)

Laboratory chemical Do not use for private purposes (household). Food, drink and animal feedingstuffs.

Laboratory and analytical use

Ireland (en)

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

Labelling according to Regulation (EC) No 1272/2008 (CLP)			
Signal word	Warning		
Pictograms			
GHS05			
Hazard stateme	ents		
H290	May be corrosive to metals		
Precautionary s	tatements		
Precautionary s	tatements - prevention		
P234	Keep only in original packaging		
Precautionary s	tatements - response		
P390	Absorb spillage to prevent material damage		
Labelling of packag Signal word: Symbol(s)	es where the contents do not exceed 125 ml		



2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of \geq 0,1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\ge 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)			
Molecular formula	NaOH		
Molar mass	40 ^g / _{mol}		

3.2 Mixtures

Description of the mixture

This product does not meet the criteria for classification in any hazard class according to GHS

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

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 (CO₂)

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.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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.

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

No special measures are necessary.

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.

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.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

SECTION 8: Exposure controls/personal protection

8.1 **Control parameters**

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
IE	sodium hydroxide	1310-73- 2	OELV			2					S.I. No. 619 of 2001

Notation

TWA

Ceiling-C STEL

Ceiling value is a limit value above which exposure should not occur Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 **Exposure controls**

Individual protection measures (personal protective equipment)

Eve/face protection



Use safety goggle with side protection.

Skin protection



hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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

>0,11 mm

- breakthrough times of the glove material
- >480 minutes (permeation: level 6)

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

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. Usually no personal respirative protection necessary.

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	not determined
Boiling point or initial boiling point and boiling range	~100 °C
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	12,7 (20 °C)
Kinematic viscosity	not determined
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
Partition coefficient n-octanol/water (log value):	not relevant (inorganic)
Vapour pressure	~23 hPa at 20 °C
Density and/or relative density	
Density	~1,01 ^g / _{cm³} at 20 °C
Relative vapour density	information on this property is not available

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

Particle characteristics	not relevant (liquid)
Other safety parameters	
Oxidising properties	none
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

9.2

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

Violent reaction with: Strong acid

10.4 Conditions to avoid

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

10.5 Incompatible materials

different metals, aluminium, zinc, tin

Release of flammable materials with

Metals, 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

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution



article number: 6783

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

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

Data are not available.

• If in eyes

Data are not available.

• If inhaled

Data are not available.

• If on skin

Data are not available.

• Other information

Due to its pH value (see section 9), irritation of the skin and eyes cannot be ruled out

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\ge 0,1\%$.

11.3 Information on other hazards

There is no additional information.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and 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

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of \geq 0,1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\ge 0,1\%$.

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.

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. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

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.

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. Non-contaminated packages may be recycled.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

SEC	SECTION 14: Transport information				
14.1	UN number or ID number				
	ADRRID	UN 1824			
	IMDG-Code	UN 1824			
	ICAO-TI	UN 1824			
14.2	UN proper shipping name				
	ADRRID	SODIUM HYDROXIDE SOLUTION			
	IMDG-Code	SODIUM HYDROXIDE SOLUTION			
	ICAO-TI	Sodium hydroxide solution			
14.3	Transport hazard class(es)				
	ADRRID	8			
	IMDG-Code	8			
	ICAO-TI	8			
14.4	Packing group				
	ADRRID	III			
	IMDG-Code	III			
	ICAO-TI	III			
14.5	Environmental hazards	non-environmentally hazardous acc. to the dan- gerous goods regulations			
14.6	Special precautions for user				
	Drevisions for dependence acade (ADD) should be complied within the promises				

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

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information			
Proper shipping name	SODIUM HYDROXIDE SOLUTION		
Particulars in the transport document	UN1824, SODIUM HYDROXIDE SOLUTION, 8, III, (E)		
Classification code	C5		
Danger label(s)	8		
Excepted quantities (EQ)	E1		
Limited quantities (LQ)	5 L		
Transport category (TC)	3		

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

Tunnel restriction code (TRC)	E
Hazard identification No	80
Regulations concerning the International information	Carriage of Dangerous Goods by Rail (RID)Additiona
Classification code	C5
Danger label(s)	8
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
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, III
Marine pollutant	-
Danger label(s)	8
Special provisions (SP)	223
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-B
Stowage category	A
Segregation group	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, III
Danger label(s)	8
$\widehat{\bullet}$	
Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	1 L

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

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)

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list None of the ingredients are listed.

Seveso Directive

2012/18/EU (Seveso III)				
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes	
	not assigned			

Deco-Paint Directive

VOC content	0 %
VOC content (Water content was discounted)	-0 ^g /l

Industrial Emissions Directive (IED)

VOC content	0 %
VOC content (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

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

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

National inventories		
Country	Inventory	Status
AU	AIIC	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
JP	ISHA-ENCS	not 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
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

Legend

Australian Inventory of Industrial Chemicals
Chemical Inventory and Control Regulation
List of Existing and New Chemical Substances (CSCL-ENCS)
Domestic Substances List (DSL)
EC Substance Inventory (EINECS, ELINCS, NLP)
Inventory of Existing Chemical Substances Produced or Imported in China
National Inventory of Chemical Substances
Inventory of Existing and New Chemical Substances (ISHA-ENCS)
Korea Existing Chemicals Inventory
New Zealand Inventory of Chemicals
Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH registered substances
Taiwan Chemical Substance Inventory
Toxic Substance Control Act

15.2 Chemical safety assessment

According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Sectio	n Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Warning	Labelling of packages where the contents do not exceed 125 ml: Signal word:	yes
2.3	Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.	yes

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.	yes
15.1	VOC content: 0 % -0 ^g / _l	VOC content: 0 %	yes
15.1		VOC content (Water content was discounted): -0 ^g / _l	yes
15.1		National inventories: change in the listing (table)	yes
15.2	Chemical Safety Assessment: Chemical safety assessments for substances in this mixture were not carried out.	Chemical safety assessment: According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
ΙΑΤΑ	International Air Transport Association
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
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Sodium hydroxide solution 0,1 mol/l - 0,1 N, Reag. Ph.Eur. volumetric standard solution

article number: 6783

Abbr.	Descriptions of used abbreviations
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
S.I. No. 619 of 2001	Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
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.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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 section 2 and 3)

Code	Text
H290	May be corrosive to metals.

Disclaimer

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