

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Sodium hydroxide solution, approx. 2 mol/l, 1 l**

Print date: 15.04.2015

Product code: 9991717

Page 1 of 8

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Sodium hydroxide solution, approx. 2 mol/l, 1 l

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH  
Street: Im Forstgarten 1  
Place: D-66459 Kirkel  
Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH  
Street: Im Stadtwald, Gebäude A1.2  
Place: D-66123 Saarbrücken  
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232  
e-mail: michael.bauer@carbolution-chemicals.de  
Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: C - Corrosive

R phrases:

Causes severe burns.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes severe skin burns and eye damage.

**2.2. Label elements****Hazardous components which must be listed on the label**

Sodium hydroxide; caustic soda

Signal word: Danger

Pictograms: GHS05

**Hazard statements**

H314 Causes severe skin burns and eye damage.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Sodium hydroxide solution, approx. 2 mol/l, 1 l

Print date: 15.04.2015

Product code: 9991717

Page 2 of 8

#### Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
215-185-5	Sodium hydroxide; caustic soda	5 - < 10 %
1310-73-2	C - Corrosive R35	
011-002-00-6	Skin Corr. 1A; H314	

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

First aider: Pay attention to self-protection! Move victim out of danger zone.

##### After inhalation

Provide fresh air. Medical treatment necessary.

##### After contact with skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

##### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Potential hazards: Stomach perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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

The product itself does not burn.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Sodium hydroxide solution, approx. 2 mol/l, 1 l

Print date: 15.04.2015

Product code: 9991717

Page 3 of 8

separately. Do not allow entering drains or surface water.

#### SECTION 6: Accidental release measures

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

##### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

The product needs to apply neutralizing agents before draining to wastewater treatment plants. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

###### **Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

###### **Advice on protection against fire and explosion**

Only use the material in places where open light, fire and other flammable sources can be kept away.

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

###### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

###### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1310-73-2	Sodium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

##### 8.2. Exposure controls

###### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

###### **Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

###### **Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

###### **Hand protection**

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

###### **Skin protection**

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Sodium hydroxide solution, approx. 2 mol/l, 1 l

Print date: 15.04.2015

Product code: 9991717

Page 4 of 8

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

### SECTION 9: Physical and chemical properties

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

Physical state: liquid  
 Colour: colourless  
 Odour: No data available

#### Test method

pH-Value: 14

#### Changes in the physical state

Initial boiling point and boiling range: 105 °C  
 Sublimation point: No data available  
 Softening point: No data available  
 Flash point: No data available

#### Flammability

Solid: No data available  
 Gas: No data available  
 Lower explosion limits: No data available  
 Upper explosion limits: No data available  
 Ignition temperature: No data available

#### Auto-ignition temperature

Solid: No data available  
 Gas: No data available  
 Vapour pressure: <24 hPa  
 (at 20 °C)  
 Vapour pressure: No data available  
 Density (at 25 °C): 1,327 g/cm<sup>3</sup>  
 Water solubility: No data available  
 Partition coefficient: No data available  
 Viscosity / dynamic: No data available  
 Viscosity / kinematic: No data available  
 Flow time: No data available  
 Vapour density: 1,38  
 Evaporation rate: No data available  
 Solvent separation test: No data available  
 Solvent content: No data available

#### 9.2. Other information

Solid content: No data available

### SECTION 10: Stability and reactivity

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Sodium hydroxide solution, approx. 2 mol/l, 1 l

Print date: 15.04.2015

Product code: 9991717

Page 5 of 8

#### 10.1. Reactivity

No data available

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

#### 10.5. Incompatible materials

Oxidizing agents, strong.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

Toxicological data are not available.

##### Acute toxicity

Toxicological data are not available.

##### Irritation and corrosivity

after ingestion: Irritant and corrosive effects. Potential hazards: Stomach perforation.

##### Sensitising effects

No data available

##### Severe effects after repeated or prolonged exposure

No data available

##### Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

##### Specific effects in experiment on an animal

No data available

##### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

##### Practical experience

##### Observations relevant to classification

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
1310-73-2	Sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50	45,4 mg/l	96 h	Onchorhynchus mykiss	

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

No data available

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Sodium hydroxide solution, approx. 2 mol/l, 1 l**

Print date: 15.04.2015

Product code: 9991717

Page 6 of 8

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Water (with cleaning agent). Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number:** UN1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE, SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8  
Classification code: C5  
Limited quantity: 1 L  
Transport category: 2  
Hazard No: 80  
Tunnel restriction code: E

**Other applicable information (land transport)**

E2

**Inland waterways transport (ADN)**

**14.1. UN number:** UN1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE, SOLUTION

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Sodium hydroxide solution, approx. 2 mol/l, 1 l

Print date: 15.04.2015

Product code: 9991717

Page 7 of 8

**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Classification code: C5  
 Limited quantity: 1 L

**Other applicable information (inland waterways transport)**  
 E2

#### Marine transport (IMDG)

**14.1. UN number:** UN1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Special Provisions: -  
 Limited quantity: 1 L  
 EmS: F-A, S-B

**Other applicable information (marine transport)**  
 E2

#### Air transport (ICAO)

**14.1. UN number:** UN1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8  
 Special Provisions: A3 A803  
 Limited quantity Passenger: 0.5 L  
 IATA-packing instructions - Passenger: 851  
 IATA-max. quantity - Passenger: 1 L  
 IATA-packing instructions - Cargo: 855  
 IATA-max. quantity - Cargo: 30 L

**Other applicable information (air transport)**  
 E2  
 : Y840

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### SECTION 15: Regulatory information

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

##### EU regulatory information

##### Additional information

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

##### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

### SECTION 16: Other information

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Sodium hydroxide solution, approx. 2 mol/l, 1 l

Print date: 15.04.2015

Product code: 9991717

Page 8 of 8

**Relevant R-phrases (Number and full text)**

35 Causes severe burns.

**Relevant H- and EUH-phrases (Number and full text)**

H314 Causes severe skin burns and eye damage.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*