



# Safety Data Sheet

According to Regulation (EC) no. 1907/2006

Product Name

CAUSTIC SODA LIQUOR 5% - 50%

## 1.0 Chemical product and company identification

### 1.1 Product Identifier

MSDS Name:

Caustic Soda Liquor 5%-50%

Substance name:

Sodium Hydroxide

CAS No:

1310-73-2

PRODUCT CODE:

SH

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

Use of the Substance / Mixture:

At this time we do not yet have information of identified uses. They will be included in the safety data sheets when available

Recommended restrictions on use:

At this time we do not yet have information of identified uses. They will be included in the safety data sheets when available

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

Company Identification:

SOLUMETRICS LTD,

UNIT 1B SILEBY ROAD INDUSTRIAL ESTATE. BARROW ON SOAR, LEIC'S. LE12 8LP.

For information call.

+44 (0)1509 815348

For emergencies call.

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## 2.0 Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) no 1272/2008

Hazard Class	Hazard Category	Target Organs	Hazard Statements
Skin Corrosion	Category 1A		H314

Hazard Symbol / Category of Danger

Risk Phrases

CORROSIVE (c)

R35

For the full text of the R-Phrases in this section, see Section 16.

### 2.2 Label Elements

Labelling according to regulation (EC) No 1272/2008

#### HAZARDS SYMBOLS



Signal Word:

DANGER

Hazard Statements:

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

**Hazardous components which must be listed on the label:**

P303 + P361 + P353 If on Skin (or Hair): Remove/ Take off immediately all contaminated clothing, Rinse skin with water/ 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.  
 P308 If exposed or concerned  
 P310 Immediately call a POISON CENTER or doctor/ Physician  
 II – Sodium Hydroxide

### 3.0 Composition/ Information on ingredients

#### 3.1 Substances

<b>Chemical Nature:</b>	Aqueous Solution
<b>Sodium Hydroxide</b>	CAS No – 1310-73-2

### 4.0 First Aid measures

#### 4.1 Description of first aid measures

##### General Advice

##### If Inhaled:

Take off all contaminated clothing immediately In case of accident by inhalation – remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately

##### In Case of Skin contact:

Wash off immediately with plenty of water for at least 15minutes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty

##### In case of eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible

##### If Swallowed:

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

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

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

### 5.0 FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

##### Suitable extinguishing Media:

The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

##### Un-Suitable extinguishing Media:

High Volume water jet

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

##### Specific hazards during fire fighting:

Reacts exothermic with water – Gives off hydrogen by reaction with base metals (zinc, Aluminium) – Risk of explosion

#### 5.3 Advice for fire-fighters

##### Special protective equipment for fire-fighters:

In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)

##### Further Information:

Collect contaminated fire extinguishing water separately. This must not be discharged into drains

### 6.0 Accidental release measures

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

##### Personal Precautions:

Use personal protective equipment. Keep away unprotected persons. Danger of slipping if spilled. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection see section 8

**6.2 Environmental precautions:**

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases

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

Absorb with liquid-binding material (sand, diatomite, acid binders, Universal binders) Keep in suitable, closed containers for disposal.

**Further Information:**

Treat recovered material as described in the section 'Disposal considerations'

**7.0 Handling and storage****7.1 Precautions for safe handling****Advice on safe handling:**

Keep containers tightly closed. Use personal Protective equipment. Provide sufficient air exchange and/ or exhaust in work rooms. Avoid formation of aerosol. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Avoid contact with the skin and the eyes. Avoid inhalation of vapour or mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

**Hygiene measures:**

Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

**7.2 Conditions for safe storage, including any incompatibilities****Requirements for storage area containers:**

Keep in an area equipped with alkali resistant flooring. Store in original container. Materials to avoid Aluminium Zinc Tin Suitable materials for containers: Stainless steel carbon steel

**Advice on Protection Against fire and explosion:**

The product is not flammable. Normal measures for preventive fire protection. Gives off hydrogen by reaction with base metals (zinc, aluminium) Risk of explosion

**Further information on storage conditions:**

Keep tightly closed in a dry and cool place. Keep in well ventilated place.

**Advice on common storage:**

Keep away from food, drink and animal feeding stuffs. Do not store together with acids and ammonium salts. Materials to avoid: Organic peroxides.

**German storage class:**

8B: Non-combustible substances, corrosive

**8.0 Exposure controls/ personal protection****8.1 Control parameters****Sodium Hydroxide**

CAS-No 1310-73-2

**Regulatory Basis**

UK. EH40 Workplace Exposure Limits (WELs)

**Regulatory List**

EH40 WEL

**Value Type**

Short term exposure limit (STEL)

**Value**

2 mg/m<sup>3</sup>

**8.2 Exposure controls****Engineering measures**

Refer to protective measures listed in sections 7 and 8

**Personal protective equipment****Respiratory protection****Advice:**

Use respirator with appropriate filter if vapours or aerosol are released.  
 Recommended Filter Type  
 Particle Filter: P2  
 Particle Filter: P3

**Hand Protection****Advice:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation  
 Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact)  
 The following materials are suitable  
 Butyl-rubber  
 Natural Rubber  
 Nitrile Rubber  
 Fluorinated Rubber  
 Polychloroprene  
 Polyvinylchloride  
 Protective Gloves should be replaced at first signs of wear.

**Eye Protection****Advice:**

Tightly fitting safety goggles

**Skin and Body Protection****Advice:**

Alkali resistant protective clothing

**Environmental exposure controls****General advice**

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities for such cases

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

<b>Form</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	
<b>PH</b>	ca. 14 20C
<b>Freezing Point</b>	ca. -5C
<b>Boiling Point</b>	ca 110C
<b>Flash Point</b>	NA
<b>Density</b>	ca 1.25 g/cm <sup>3</sup> 20C
<b>Water solubility</b>	Completely miscible
<b>Ignition Temperature</b>	Not applicable
<b>Oxidizing Properties</b>	

**10.0 Stability and reactivity****10.1 Reactivity****10.2 Chemical stability****10.3 Possibility of hazardous reactions****Hazardous reaction:**

Exothermic reaction with strong acids. Gives off hydrogen by reaction with base metals (zinc, aluminium) Risk of explosion

**10.4 Conditions to avoid****10.5 Incompatible materials****Materials to avoid:**

Materials to avoid  
 Acid  
 Light metals

Aluminium  
Zinc  
Organic peroxides

## 10.6 Hazardous decomposition products

## 11.0 Toxicological Information

### 11.1 Information on toxicological effects

#### Sodium Hydroxide CAS-No 1310-73-2

##### Acute toxicity

##### Oral

Value Type – LD50

Value – 325 mg/kg

Species – rat

#### Inhalation

##### Remarks

Inhalation may cause pain in respiratory system, sneezing coughing and difficulty in breathing. Risk for pulmonary edema by high concentration

#### Irritation

##### Skin

Species – Rabbit

Result – Very Corrosive

##### Eyes

Species – Rabbit

Result – Very Corrosive

Remarks – Risk of serious damage to eyes

##### Sensitisation

Remarks – Patch test on Human Volunteers did not demonstrate sensitization properties

##### Further Information

Other Relevant toxicity information – All numerical values for acute toxicity are calculated on the pure substances. If ingested severe burns of the mouth and throat. As well as a danger of perforation of oesophagus and the stomach

## 12.0 Ecological Information

### 12.1 Toxicity

#### Sodium Hydroxide CAS-No 1310-73-2

##### Acute toxicity

##### Fish

Species  
Exposure Time  
Value Type  
Value

Gambusia affinis

96 h

LC50

125 mg/l

Species  
Exposure Time  
Value Type  
Value

Poecilia reticulata

24 h

LC50

145 mg/l

#### Toxicity to daphnia and other aquatic invertebrates

Species  
Exposure Time  
Value Type  
Value

Daphnia magna

24 h

EC50

76 mg/l

##### Bacteria

Species  
Exposure Time

Photobacterium Phosphoreum

15 min

<b>Value Type</b>	EC50
<b>Value</b>	22 mg/l

**12.2 Persistence and degradability**

Sodium Hydroxide CAS-No 1310-73-2  
Persistence and degradability  
Biodegradability

<b>Remarks</b>	The methods for determining biodegradability are not applicable to inorganic substance
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**12.3 Bioaccumulative potential**

Sodium Hydroxide CAS-No 1310-73-2  
Bioaccumulation

<b>Remarks</b>	Does not bioaccumulate
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**12.4 Mobility in soil****12.5 Results of PBT and vPvB assessment****12.6 Other adverse effects**

Sodium Hydroxide CAS-No 1310-73-2  
Additional ecological information

<b>Remarks</b>	All numerical values for ecotoxicity effects are calculated on the pure substances. Harmful effects to aquatic organisms due to pH-shift. Neutralization is normally necessary before waste water is discharged into water treatment plants. Do not flush into surface water or sanitary sewer system.
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**13.0 Disposal considerations****13.1 Waste treatment methods**

<b>Product</b>	Disposal together with normal waste is not allowed. Special disposal required to local regulations. Do not let product enter drains. Contact waste disposal services.
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<b>Contaminated Packaging</b>	Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
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<b>European Waste Catalogue Number</b>	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.
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**14.0 Transport information**

<b>14.1 UN number</b>	1824
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**14.2 UN proper shipping name**

<b>ADR</b>	SODIUM HYDROXIDE SOLUTION
<b>RID</b>	SODIUM HYDROXIDE SOLUTION
<b>IMDG</b>	SODIUM HYDROXIDE SOLUTION

**14.3 Transport hazard class(es)**

<b>ADR-Class</b>	8
<b>(labels; Classification Code; Hazard Identification No; Tunnel restriction code)</b>	8; C5; 80; (E)

<b>RID-Class</b>	8
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(labels; Classification Code; Hazard Identification No; Tunnel restriction code)

8; C5; 80

IMDG-Class  
(Labels; EmS)

8  
8; F-A, S-B

#### 14.4 Packing group

ADR  
RID  
IMDG

II  
II  
II

#### 14.5 Environmental Hazards

Labelling according to 5.2.1.8 ADR  
Labelling according to 5.2.1.8 RID  
Labelling according to 5.2.6.3 IMDG  
Classification as environmentally hazardous  
According to 2.9.3 IMDG  
Classified as 'P' according to 2.10 IMDG

no  
no  
no  
no  
no  
no

#### 14.6 Special precautions for user

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

IMDG

Not applicable

#### 15.0 Regulatory Information

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

##### 15.2 Chemical Safety Assessment

#### 16.0 Other information

Full text of R-Phrases referred to under section 2 and 3

R35 Causes severe burns

Full text of H-Statements referred to under section 2 and 3

H314 Causes severe skin burns and eye damage

#### Other information

This information is based upon Solumetrics Ltd Knowledge of this product at the time this Safety Data Sheet was prepared. It is given in good faith and no warranty is implied. The information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The user must satisfy him/her self as to the purpose this product is put to and the possible change in classification should this product be mixed or formulated with other compounds