

SAFETY DATA SHEET

1. Identification of the substance/preparation and of the company/undertaking

1.1 Product Identifier

Trade Name: Sodium hydroxide
Other names: pH Plus Liquid, Caustic Soda

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

Uses: Water Balance

1.3 Details of the supplier of the safety data sheet

Company: Complete Pool Controls Ltd
Unit 2, The Park
Stoke Orchard
Bishops Cleeve
Gloucestershire
GL52 7RS

Telephone: +44 (0) 8712 229081

Fax: +44 (0) 8712 229083

E-mail: sales@cpc-chemicals.co.uk

1.4 Emergency Telephone

Tel: +44 (0) 8712 229081 (office hours)

+44 (0) 1242 300271 (outside of office hours)

2. Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

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

For the full text of the H statements mentioned in this section see Section 16.

Most important adverse effects

Human Health: See section 11 for toxicological information
Physical & Chemical Hazards: See section 9 for physicochemical information
Potential environmental effects: See section 12 for environmental information

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms: GHS05: Corrosion

Hazard symbols:



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+P361+P353: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
P303+361+353: Rinse skin with water
Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P305+351+338: IF IN EYES: present and easy to do – continue rinsing
If exposed or concerned: Immediately call a POISON CENTRE or
P308+310: doctor/physician

Additional Labelling:

Hazardous components which must be listed on the label Sodium hydroxide

2.3 Other Hazards

No other information is available

Trade Name: Sodium Hydroxide

3. Composition/information on ingredients

3.1 Substances

Chemical nature: Liquid

Sodium hydroxide

Index-No:	Cas No:	EC No:	Amount %	CLP Phrases
011-002-00-6	1310-73-2	215-185-5	>=5 - <=50	Skin Corr. 1A H314

4. First Aid measures

4.1 Description of first aid measures

General Advice: Take off all contaminated clothing immediately.

If Inhaled: 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 soap & water. 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 eyelids for at least 15 minutes. Remove contact lenses. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.

If swallowed: Clean mouth with water and drink plenty of water. Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting - seek medical advice. If a person vomits when lying on his back place him in the recovery position.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects: See section 11 for more detailed information on health effects and symptoms

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically

5. Fire fighting measures

5.1 Extinguishing media:

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

Unsuitable media: High powered water jet

5.2 Special hazards arising from the substance or mixture

Specific Hazards in fire: Reacts exothermic with water
Gives off hydrogen by reaction with base metals (zinc, aluminium)
Risk of explosion

5.3 Advice for fire-fighters

Protective equipment: 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. Accidental release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions: Use personal protective equipment. Keep unprotected people away from spill/leak. Danger of slipping if spilled. Avoid contact with skin and eyes. Do not breathe vapours or spray mist.

6.2 Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains or if the material reaches soil - inform respective authorities.

6.3 Methods and materials for containment and cleaning up

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'

6.4 Reference to other sections

See Section 1 for emergency contact information
 See Section 8 for personal protective information
 See Section 13 for waste treatment information

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Keep container tightly closed. Use personal protective equipment. Provide sufficient air exchange and/or exhaust in work rooms. Avoid formation of aerosol. In case of mist, spay or aerosol exposure wear suitable personal respiratory protection and protective suit. Avoid contact with skin and 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 the work day. Take off all contaminated clothing immediately. Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities.

Storage Areas: Keep in an area equipped with alkali flooring.

Containers: Store in original container. Materials to avoid Aluminium, Zinc and Tin. Suitable materials for container; Stainless steel, carbon, steel.

Fire: The product is not flammable. Gives off hydrogen by reaction with base metals.

Explosion: Risk of explosion.

Common storage: Do not store together with acids and ammonium salts. Materials to avoid organic peroxides.

German storage class: 8B:Non-combustible substance, corrosive

7.3 Specific end uses

Specific use(s) No information available

8. Exposure control/personal protection

8.1 Control parameters

Sodium Hydroxide 1310-73-2

Regulatory List	Value type	Value	
EH40 WEL	STEL*	2	mg/m ³

*Short Term Exposure Limit (STEL)

[Cont...]

8. Exposure control/personal protection continued.....**8.2 Exposure controls**

Engineering measures Refer to protective measures listed in sections 7 and 8

Personal protective equipment

Respiratory protection Use respirator with appropriate filter if vapours or aerosol are released
Required, if exposure limit is exceeded
Particle filter: P2 / Particle filter: P3

Hand protection Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
The glove material has to be impermeable to the product/the substance/preparation.
Take note of the information given by the producer concerning permeability, break through times, and of special and of special working conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first sign of wear.

Material	Gloves	Thickness
Natural Rubber	>= 8 h	0.5mm
Polychloropene	>= 8 h	0.5mm
Nitrile rubber	>= 8 h	0.35 mm
butyl rubber	>= 8 h	0.5mm
Fluorinated rubber	>= 8 h	0.4mm
Polyvinylchloride	>= 8 h	0.5mm

Eye protection Tightly fitted safety goggles

Skin and body protection Alkali resistant clothing

Environmental exposure controls

General advice: Do not flush into surface water or sanitary sewer systems. Avoid subsoil penetration
If the product contaminates rivers and lakes or drains or soil inform respective authorities.

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Form: Liquid
Colour: Colourless
Odour: Odourless

pH @ 20°C: ca.14
Flash point: Not applicable
Flammability (solid, gas) Does not ignite
Upper explosion limit: Not applicable
Lower explosion limit: Not applicable
Water solubility: Completely soluble
Ignition temperature: Not applicable
Explosive properties: Product is not explosive

9.2 Other Information No further information available

Trade Name: Sodium Hydroxide

10. Stability and reactivity

10.1 Reactivity

Reactivity Gives off hydrogen by reaction with base metals (zinc, aluminium)

10.2 Chemical stability

Chemical stability No decomposition if stored and applied as directed

10.3 Possibility of hazardous reactions

Hazardous reactions: Exothermic reaction with strong acids. Gives off Hydrogen, by reaction with base metals (zinc, aluminium). Risk of explosion

10.4 Conditions to avoid

Conditions to avoid No data available

10.5 Incompatible materials

Materials to avoid Acids / Light metals / Aluminium / Zinc and Organic peroxides

10.6 Hazardous decomposition products

Haz.decomp. products: No data available

11. Toxicological Information

11.1 Information on toxicological effects

Primary Irritant effect:

On the skin: Very Corrosive

On the eyes: Very Corrosive. Risk of very serious damage to eyes.

Sensitization:

Patch test on human volunteers did not demonstrate sensitization properties.

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

12. Ecological Information

12.1 Toxicity

Acute Toxicity

Fish	Exposure	Type	Value
Gambusia affinis	96h	LC50	125 mg/l
Poecilia reticulata	24h	LC50	145 mg/l
Toxicity to daphnia and other aquatic invertebrates			
Daphna magna	24 h	EC50	76 mg/l
Bacteria			
Photobacterium phosphoreum	15 min	EC50	22 mg/l

12.2 Persistence and degradability

Persistence and degradability The methods for determining biogradability are not applicable to inorganic substances.

[Cont...]

12. Ecological Information**12.3 Bioaccumulative potential**

Bioaccumulative potential: Does not bioaccumulate

12.4 Mobility in soil

Mobility: The product is mobile in water environment

12.5 Results of PBT and PvB assessment

PBT identification: No information available

12.6 Other adverse effects

Other adverse effects: 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
 Do not flush into surface water or sanitary water system

13. Disposal Considerations**13.1 Waste treatment methods**

- Disposal should be in accordance with local, state or national legislation
- Do not reuse empty containers without commercial cleaning or reconditioning
- Do not discharge into drains or the environment ,dispose to an authorised waste collection point

Classification

Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority

14. Transport Information**14.1 UN Number**

UN1824

14.2 UN proper shipping name

UN proper shipping name SODIUM HYDROXIDE SOLUTION

14.3 Transport hazard class(es)

ADR Class 8
 (Label, classification code; Hazard ID; Tunnel
 Restriction code) 8;C5;80; (E)

RID Class 8
 (Label, Classification Code; Hazard ID;) 8;C51;80;

IMDG Class 8
 (Labels; EmS) 8, F-A,S-B

14.4 Packaging Group

Packing Group II

14.5 Environmental hazards

Labelling according to 5.2.1.8 ADR/RID/IMDG: No
 Classification as environmentally hazardous according to 2.9.3 IMDG: No

14.6 Special precautions for user

Not applicable

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

IMDG: Not applicable

Trade Name: Sodium Hydroxide

15. Regulatory information

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

15.2 Chemical Safety Assessment

No data available

16. Other information

Full text of H-statements referred to under sections 2 and 3
H314 Causes severe skin burns and eye damage

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Rev 4

Indicates updated section