

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

1.1 Product Identifier

Trade Name: Sodium Hypochlorite - 14 / 15%
CAS No: 7681-52-9
EC No: 231-668-3

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

Uses: Disinfection of Swimming Pool Water
Restrictions: At this time we do not have information on use restrictions

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)

2. Hazard 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 1B		H314
Acute Aquatic toxicity	Category 1		H400

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Hazard Symbol/Category of danger	Risk phrases
Corrosive: C	R34 R31
Dangerous for the environment	R50

For the full text of the R phrases 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 symbols:



Signal word: Danger

Hazard statements: H314 Causes severe skin burns and eye damage
H400 Very toxic to aquatic life

Trade Name: Sodium Hypochlorite - 14 / 15%

2. Hazard Identification

Precautionary statements:

Prevention P260: Do not breathe vapours
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

Response

P301+330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

Additional Labelling:

EUH031 Contact with acids liberates toxic gases

Hazardous components which must be listed on the label

Sodium Hypochlorite, solution

2.3 Other Hazards No other information is available

3. Composition/information on ingredients

3.1 Substances Sodium Hypochlorite, solution

Chemical nature: Aqueous solution

Chemical Name	Identification Numbers	Amount %
Sodium hypochlorite, solution	Index-No: 017-011-00-1	
	Cas No: 7681-52-9	
	EC No: 231-668-3	>=10 - <=15
	Registration No: 01-2119488154-34-xxxx	
Sodium hydroxide	Index-No: 011-002-00-6	
	Cas No: 1310-73-2	>=0 - <=5
	EC No: 215-185-5	

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. If irritation appears seek medical advice

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.

Trade Name: Sodium Hypochlorite - 14 / 15%

4. First Aid measures continued

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Inhalation may provoke the following symptoms
Cough
Headache
Lung oedema

Effects: Risk of serious damage to the lungs (by aspiration)

4.3 Indication of immediate medical attention and special treatment needed

Treatment Treat symptomatically
later control for lung pneumonia and lung oedema

5. Fire fighting measures

5.1 Extinguishing media:

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

Unsuitable extinguishing media: Exempt

5.2 Special hazards arising from the substance or mixture

Specific Hazards during fire fighting: Fire may cause evolution of
Chlorine
Hydrogen chloride gas
chlorine oxides

5.3 Advice for fire-fighters

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

Further Information: Cool closed containers exposed to fire with water spray. Heating will cause a pressure rise -with a risk of bursting.
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. Wear respiratory protection. Keep people away from and upwind of spill/leak.
Provide adequate ventilation. Danger of slipping if spilled.
Avoid contact with skin & eyes. Do not breathe vapour.

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 - inform respective authorities.
If material reaches soil inform authorities responsible for such cases.

6. Accidental release Measures cont

6.3 Methods and materials for containment and cleaning up

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'

6.4 Reference to other sections

For personal protection see Section 8

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:	Do not keep the container sealed. Handle and open container with care. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours are released. 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. Avoid contact with the skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities.

Requirements for storage areas and containers:	Keep in an area equipped with alkali resistant flooring. Keep only in the original container. Store in a receptacle equipped with a vent.
Advice on protection against fire and explosion:	The product is not flammable. Normal measures for preventative fire protection.
Further information:	Keep in a well-ventilated place. Protect against light. Store in a cool place. Do not keep the container sealed.
Advice on common storage:	Keep away from food, drink and animal feedstuffs. Do not store together with acids and ammonium salts.
German storage class:	8B: Non combustible substances, corrosive
Storage Temperature:	No further information available

7.3 Specific end uses

Specific use(s)	No information available
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8. Exposure control/personal protection**8.1 Control parameters**

Component: sodium hydroxide **Other OELs** **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/m³

Component: Chlorine **Other OELs** **CAS No:** 1310-73-2

Regulatory Basis: EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and biological agents.

Regulatory List: EU ELV
 Value type: Short Term Exposure Limits (WELS)
 Form of exposure: EH40 WEL
 Value: 0.5ppm
 Value: 1.5 mg/m³
 Remarks: Indicative

Regulatory Basis: UK. EH40 Workplace Exposure Limits (WELS)
 Regulatory List: EH40 WEL
 Value type: Short Term Exposure Limit (STEL)
 Value: 0.5ppm
 Value: 1.5 mg/m³

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

Advice: Recommended Filter type:
 Combination filter: B-P2
 Combination filter: B-P3

Hand protection The glove material has to be impermeable to the product/the substance/preparation.

Advice: 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: butyl rubber
 Gloves 8h
 Glove thickness: 0.5mm

Material: Polyvinylchloride
 Gloves 8h
 Glove thickness: 0.5mm

Material: Polychloropene
 Gloves 8h
 Glove thickness: 0.5mm

8. Exposure control/personal protection Cont.....

8.2 Exposure controls

Personal protective equipment

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 systems
Avoid subsoil penetration
If the product contaminates rivers and lakes or drains inform respective authorities.
If the product reaches soil inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	Liquid
Colour:	Yellowish Green
Odour:	Slight chlorine
Odour Threshold:	Currently we do not have any information from our supplier about this.
pH @ 20°C:	>11
Melting point:	-17 ° C
Boiling point:	100 ° C
Flash point:	not applicable
Evaporation rate:	Currently we do not have any information from our supplier about this.
Flammability (solid, gas)	does not ignite
Upper explosion limit:	not applicable
Lower explosion limit:	not applicable
Vapour pressure:	Currently we do not have any information from our supplier about this.
Relative vapour density:	>1.0 (Air = 1.0)
Density @ 20°C:	1.2-1.3 g/cm ³
Water solubility:	Completely soluble
Partition coefficient:n-octanol/water:	Currently we do not have any information from our supplier about this.
Ignition temperature:	not applicable
Thermal decomposition:	Currently we do not have any information from our supplier about this.
Viscosity, kinematic:	3.45 mPa.s 20 ° C (Aqueous solution 15%)
Explosive properties:	Not explosive
Oxidising properties:	Currently we do not have any information from our supplier about this.

9.2 Other Information

No further information available

Trade Name: Sodium Hypochlorite - 14 / 15%

10. Stability and reactivity

10.1 Reactivity

Advice: This product is a very reactive substance that can react with many inorganic and organic compounds.

10.2 Chemical stability

Advice: Decomposes on heating
Decomposes on exposure to light.

10.3 Possibility of hazardous reactions

Hazardous reactions: May develop chlorine if mixed with acidic solutions

10.4 Conditions to avoid

Conditions to avoid Heat

10.5 Incompatible materials

Materials to avoid	Acids	Ammonium compounds
	Acetic anhydride	Organic materials
	Hydrogen peroxide	metal salts
	nickel	copper
	iron	

10.6 Hazardous decomposition products

Hazardous decomposition products: Hydrogen chloride gas
Chlorine
chlorine oxides

11. Toxicological Information

11.1 Information on toxicological effects

Product:	Sodium Hypochlorite Solution 10-15% CL Active	CAS No: 7681-52-9
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Acute toxicity Oral

Value type	LD50
Value	2,900 - 3,400 mg/kg
Species	mouse
Remarks	Cause serious burns with severe pains, vomiting, pains in the stomach, possibly chock and damaged kidneys. The burn may occur even if only small amounts have been swallowed.

Inhalation

Value type	LC50
Value	>10.5 mg/l
Species	rat

Dermal

Value type	LD50
Value	>2,000 mg/kg
Species	rabbit

Trade Name: Sodium Hypochlorite - 14 / 15%

11. Toxicological Information

11.1 Information on toxicological effects

Product: Sodium Hypochlorite Solution 10-15%
CL Active

CAS No: 7681-52-9

Irritation Skin

Species: rabbit
Result: Severe skin irritation
Method: OECD Test Guideline 404

Species: human
Result: corrosive effects

Eyes

Species: rabbit
Result: corrosive effects
Remarks: risk of serious damage to eyes

Sensitisation

Species: guinea pig
Result: not sensitizing

Further information

Other relevant toxicity: 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 the oesophagus and the stomach
Handle in accordance with good industrial hygiene and safety practise.

12. Ecological Information

12.1 Toxicity

Component: Sodium Hypochlorite Solution 10-15%
CL Active

CAS No: 7681-52-9

Acute toxicity Fish

Species: Pimephales promelas
Exposure time: 96h
Value type: LC50
Value: 0.22 - 0.62 mg/l

Toxicity to daphnia and other aquatic invertebrates

Species: Daphna magna
Exposure time: 96 h
Value type: EC50
Value: 2.1 mg/l

algae

Species: Desmodesmus subspicatus (green algae)
Exposure time: 24h
Value type: EC50
Value: 28 mg/l

Trade Name: Sodium Hypochlorite - 14 / 15%

12. Ecological Information

**Component: Sodium Hypochlorite Solution 10-15%
CL Active**

CAS No: 7681-52-9

12.2 Persistence and degradability

Persistence

Remarks: no data available

Biogradability

Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Bioaccumulation

Remarks: Bioaccumulation is not expected

12.4 Mobility in soil

Mobility

Remarks: The product is mobile in water environment

12.5 Results of PBT and PvB

Results of PBT and PvB assessment

Remarks: No information available

12.6 Other adverse effects

Additional ecological information

Remarks: All numerical values for ecotoxicity effects are calculated on the pure substances.
Do not flush into surface water or sanitary water system

13. Disposal Considerations

13.1 Waste treatment methods

Product: Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging: Empty contaminated packaging's 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.

European Waste Catalogue No: 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.

Trade Name: Sodium Hypochlorite - 14 / 15%

14. Transport Information

14.1 UN Number 1791

14.2 UN proper shipping name

ADR: Hypochlorite Solution
RID: Hypochlorite Solution
IMDG: Hypochlorite Solution

14.3 Transport hazard class(es)

ADR Class 8
(Label, classification code; Hazard ID; Tunnel 8;C9;80; (E)

RID Class 8
(Label, Classification Code; Hazard ID;) 8;C9;80;

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

14.4 Packaging Group

ADR: III
RID: III
IMDG: III

14.5 Environmental hazards

Labelling according to 5.2.1.8 ADR: Fish and tree
Labelling according to 5.2.1.8 RID: Fish and tree
Labelling according to 5.2.1.8 IMDG: Fish and tree
Classification as environmentally hazardous according to 2.9.3 IMDG: Yes

14.6 Special precautions for user

Note: Not applicable

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

IMDG: Not applicable

15. Regulatory information

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

15.2 Chemical Safety Assessment

Currently we do not have any information from our supplier about this.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R31	Contact with acids liberates toxic gases
R34	Causes burns
R50	Very toxic to aquatic organisms

Full text of H-statements referred to under sections 2 and 3

H314	Causes severe skin burns and eye damage
H400	Very toxic to aquatic life

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability, or fitness for any particular use, or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from use of this information. Users should make their own investigations to determine the suitability of the information for their particular needs and uses.

• **Abbreviations and acronyms:**

ADR:	Accord europeen sur le transport des marchandises dangereuse par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID:	Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Carriage of Dangerous Goods by Road)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR	Dangerous goods Regulations by the 'International Air Transport Association' (IATA)
ICAO:	International Civil Aviation Organization
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances.
CAS:	Chemicals Abstracts Service (division of the Americal Chemical Society)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent

Revision	Date	By	Amendment
1	18/10/10	Linda Brueford	GHS label elements added and other minor editorial amendments
2	10/03/11	Linda Brueford	Updated to 2011 European requirements