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

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

1.1 Product identifier

Trade name/designation	Sodium hypochlorite in aqueous solution, 10-14% active chorine
Product No.	PRD5333
Substance name	Sodium hypochlorite in aqueous solution, 10-14% active chorine
CAS No.	7681-52-9
INDEX no.	017-011-00-1
REACH registration No.	Not yet communicated down the supply chain.
other means of identification	

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

Relevant identified uses	for laboratory use and chemical production.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

: Better Equipped,
Wrenbury Business Park,
Wrenbury Road,
Wrenbury,
Nantwich, Cheshire,
CW5 8EB, UK

Telephone	+44 (0) 800 9707142
Fax	+44 (0) 800 066 4443
E-mail address	sales@betterequipped.co.uk

1.4 Emergency telephone

Telephone	+44 (0)1270 781238

2. Hazards identification

2.1 Classification of the substance or mixture

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

hazard classes and hazard categories	Hazard Statements	classification procedure	remark
Skin corrosion, category 1B	H314		

Hazardous to the aquatic environment, acute, category 1	H400		

2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols:	R-phrases
	R31
C	R34
N	R50

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word Danger

Hazard Statements

H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309+P310	IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

2.2.2 Labelling (67/548/EEC or 1999/45/EC)

Hazard symbols:

C, N

R-phrases

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

S-phrases

S28	After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer).
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S50	Do not mix with ... (to be specified by the manufacturer).
S61	Avoid release to the environment. Refer to special instructions/safety data

	sheets.

2.3 Other hazards

none

3. Composition/ Information on ingredients

Hazardous ingredients:
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Substance name	CAS No.	EC No	concentration	hazard classes and hazard categories
Sodium hypochlorite (SVHC = No)	7681-52-9	231-668-3	10,00 - 25,00%	H314 - Skin corrosion, category 1B, H400 - Hazardous to the aquatic environment, acute, category 1

Hazardous ingredients:
Classification according to 67/548/EEC

Substance name	CAS No.	EC No	concentration	Hazard symbols:	R-phrases
Sodium hypochlorite	7681-52-9	231-668-3	10,00 - 25,00%	C, N	31-34-50

Molecular formula	ClNaO
Molecular weight (g/mol)	74.44 g/mol
CAS No.	7681-52-9
EC No	231-668-3
INDEX no.	017-011-00-1

4. First-aid measures

4.1 General information

IF exposed: Immediately call a POISON CENTER or doctor/ physician. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

4.2 After inhalation

Immediately call a POISON CENTER or doctor/ physician. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

4.3 In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

4.4 After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

4.5 After ingestion

Immediately call a POISON CENTER or doctor/ physician. Do not induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

4.6 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.7 Information to physician:

Symptoms	No data available
Hazards	No data available
Treatment	No data available

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5. Firefighting measures

5.1 Suitable extinguishing media

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.2 Extinguishing media which must not be used for safety reasons:

no restriction

5.3 Special hazards arising from the substance or mixture

In case of fire may be liberated: Hydrogen chloride (HCl) Nitrogen oxides (NOx) Sulphur oxides

5.4 Advice for firefighters

DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

5.5 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers.

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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

6.4 Additional information

Clear spills immediately.

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7. Handling and storage

7.1 Precautions for safe handling

Avoid: Inhalation. Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.

7.2 Conditions for safe storage, including any incompatibilities

storage temperature 2-8°C

Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

No data available

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8. Exposure controls / Personal protection

8.1 Control parameters

Ingredient (Designation)	Limit value type (country of origin):	Limit value	Regulatory information

8.2 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

8.3 Personal protective equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

8.3.1 Eye / face protection

Eye glasses with side protection DIN-/EN-Norms: DIN EN 166

8.3.2 Skin protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms: DIN EN 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact	
Suitable material:	No data available
Thickness of the glove material	No data available
Breakthrough time (maximum wearing time)	No data available
Recommended glove articles	No data available
By long-term hand contact	
Suitable material:	No data available
Thickness of the glove material	No data available
Breakthrough time (maximum wearing time)	No data available
Recommended glove articles	No data available

8.3.3 Protective clothing

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

8.3.4 Respiratory protection

Respiratory protection necessary at: aerosol or mist formation.

Suitable respiratory protection apparatus:	No data available
Recommendation	No data available
Suitable material:	No data available
Recommendation	No data available

8.4 Additional information

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance	
Physical state	liquid
Colour	No data available
(b) Odour	No data available
(c) Odour threshold	No data available

Safety relevant basic data

(d) pH	No data available
(e) Melting point/freezing point	-30 to -20 °C
(f) Initial boiling point and boiling range	111°C (1013 hPa)
(g) Flash point	No data available
(h) Evaporation rate	No data available
(i) Flammability (solid, gas)	not applicable
(j) Upper/lower flammability or explosive limits	
Lower explosion limit (Vol-%)	No data available
Upper explosion limit (Vol-%)	No data available
(k) Vapour pressure	No data available
(l) Vapour density	No data available
(m) Relative density	1.22 g/cm³ (20°C)
(n) Solubility(ies)	
Water solubility (g/l)	No data available
at °C:	
Soluble (g/l) in	No data available
(o) Partition coefficient: n-octanol/water	No data available
(p) Auto-ignition temperature	No data available
(q) Decomposition temperature	No data available
(r) Viscosity	
Kinematic viscosity	No data available
Dynamic viscosity	No data available
(s) Explosive properties	not applicable
(t) Oxidising properties	not applicable

9.2 Other information

Bulk density	No data available
refraction index	No data available
dissociation constant	No data available
Surface tension	No data available
Henry constant	No data available

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10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available

10.7 Additional information

No data available

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11. Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity	
Effective dose	No data available
species:	No data available
Exposure time	
remark	
source	

Acute dermal toxicity	
Effective dose	No data available
species:	No data available
Exposure time	
remark	
source	

Acute inhalation toxicity	
Effective dose	No data available
species:	No data available
Exposure time	
remark	
source	

Irritant and corrosive effects

Primary irritation to the skin
Exposure time
species:
Result

Irritation to eyes
Exposure time
species:
Result

Irritation to respiratory tract
Exposure time
species:
Result

Sensitisation

In case of skin contact	not sensitising.
After inhalation	not sensitising.

Specific target organ toxicity (single exposure)

not relevant

Specific target organ toxicity (repeated exposure)

not relevant

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No indication of human carcinogenicity.

Germ cell mutagenicity/Genotoxicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

Aspiration hazard

not relevant

11.2 Other adverse effects

No data available

11.3 Additional information

No data available

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12. Ecological information

12.1 Ecotoxicity

Acute (short-term) fish toxicity

LC50: No data available
EC50
species:
Exposure time

Chronic (long-term) fish toxicity
LC50: No data available
EC50
species:
Exposure time

Acute (short-term) daphnia toxicity
LC50: No data available
EC50
species:
Exposure time

Chronic (long-term) daphnia toxicity
LC50: No data available
EC50
species:
Exposure time

Acute (short-term) algae toxicity
LC50: No data available
EC50
species:
Exposure time

Chronic (long-term) algae toxicity
LC50: No data available
EC50
species:
Exposure time

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

(o) Partition coefficient: n-octanol/water No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT assessment

No data available

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product	No data available

Appropriate disposal / Package

13.2 Additional information

No data available

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14. Transport information

14.1 Land transport (ADR/RID)

UN-No.	1791
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class(es)	8
Classification code:	C9
Packing group	II
Hazard label(s)	8

14.2 Sea transport (IMDG)

UN-No.	1791
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class(es)	8
Classification code:	C9
Packing group	II
Marine pollutant	
Segregation group	

14.3 Air transport (ICAO-TI / IATA-DGR)

UN-No.	1791
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class(es)	8
Classification code:	C9
Packing group	II

14.4 Additional information

No data available

15. Regulatory information

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

Water hazard class (WGK) No data available

15.2 Chemical Safety Assessment

No data available

16. Other information

16.1 Relevant R-, H- and EUH-phrases (Number and full text)

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

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

EUH031	Contact with acids liberates toxic gas.

16.2 Additional information

Indication of changes

general update

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.