

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Sodium hypochlorite 10-15% (All grades)

Version 9.1

Revision date / valid from 13/12/2023

MSDS code:MSHY100

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : Sodium hypochlorite 10-15% (All grades)
 Substance name : sodium hypochlorite, solution
 Index-No. : 017-011-00-1
 CAS-No. : 7681-52-9
 EC-No. : 231-668-3
 Registration number : 01-2119488154-34-xxxx

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

Use of the Substance/Mixture : Identified use: See table in front of appendix for a complete overview of identified uses.
 Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : T R Bonnyman Son & Co Ltd
 Willowburn Road, Willowyard Industrial Estate
 GB KA15 1LN Beith:
 Telephone : +44 (0) 1505 504 716
 Telefax : +44 (0) 1505 504 040
 E-mail address : info@bonnymans.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
 +44 (0) 1865 407333 (N.C.E.C. Culham)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Skin corrosion	Category 1B	---	H314
Acute aquatic toxicity	Category 1	---	H400

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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

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Corrosive (C)Corrosive (C)	R34
Dangerous for the environment (N)Dangerous for the environment (N)	R50
	R31


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 and 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.
- Precautionary statements
- Prevention : P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response : P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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

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P310

rinsing.
Immediately call a POISON CENTER or doctor/ physician.

Additional Labelling:

EUH031 Contact with acids liberates toxic gas.

Hazardous components which must be listed on the label:

- sodium hypochlorite, solution
- sodium hydroxide

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical nature : sodium hypochlorite
Aqueous solution

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
sodium hypochlorite, solution				
Index-No. : 017-011-00-1		Met. Corr.1	H290	R31
CAS-No. : 7681-52-9		Skin Corr.1B	H314	Corrosive; C; R34
EC-No. : 231-668-3		Eye Dam.1	H318	Irritant; Xi; R37
Registration : 01-2119488154-34-xxxx	>= 10 - <= 15	STOT SE3	H335	Dangerous for the environment; N;
		Aquatic Acute1	H400	R50
sodium hydroxide				
Index-No. : 011-002-00-6		Met. Corr.1	H290	Corrosive; C; R35
CAS-No. : 1310-73-2		Skin Corr.1A	H314	
EC-No. : 215-185-5	>= 0 - < 5			
Registration : 01-2119457892-27-xxxx				

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: First aid measures

4.1. Description of first aid measures

General advice : Take off all contaminated clothing immediately.

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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 soap and plenty of water. If irritation appears or if the contamination is important, seek medical advice.
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. 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	: Inhalation may provoke the following symptoms: Cough, Headache, Lung oedema
Effects	: Risk of serious damage to the lungs (by aspiration).

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

Treatment	: Treat symptomatically. Later control for pneumonia and lung oedema.
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Section 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	: Fire may cause evolution of: Chlorine, Hydrogen chloride gas, chlorine oxides
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5.3. Advice for firefighters

Special protective equipment for firefighters	: 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 risk of bursting. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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Section 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 and 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.

6.3. 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. Do not keep the container sealed.

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

For personal protection see section 8.

Section 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 the skin and the eyes. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours or aerosol 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 feedingstuffs. 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.

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 preventive fire protection.

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Further information on storage conditions : Keep in a well-ventilated place. Protect against light. Store in cool place. Do not keep the container sealed.

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Do not store together with acids and ammonium salts.

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

7.3. Specific end use(s)

Specific use(s) : No information available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Component:	sodium hydroxide	CAS-No.
		1310-73-2

Other Occupational Exposure Limit Values

EH40 WEL, Short Term Exposure Limit (STEL):
2 mg/m³

ELV (IE), Short Term Exposure Limit (STEL):
2 mg/m³

Component:	chlorine	CAS-No.
		7782-50-5

Other Occupational Exposure Limit Values

EU ELV, Short Term Exposure Limit (STEL):
0.5 ppm, 1.5 mg/m³
Indicative

EH40 WEL, Short Term Exposure Limit (STEL):
0.5 ppm, 1.5 mg/m³

ELV (IE), Short Term Exposure Limit (STEL):
0.5 ppm, 1.5 mg/m³
Indicative OELV

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

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Personal protective equipment

Respiratory protection

Advice : Use respirator with appropriate filter if vapours or aerosol are released.
Recommended Filter type:
Combination filter:B-P2
Combination filter:B-P3
For low vapor concentrations: EN 136. For higher concentrations:
EN 137

Hand protection

Advice : Protective gloves complying with EN 374.
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).
Protective gloves should be replaced at first signs of wear.

Material : butyl-rubber
Break through time : 8 h
Glove thickness : 0.5 mm

Material : Polyvinylchloride
Break through time : 8 h
Glove thickness : 0.5 mm

Material : polychloroprene
Break through time : 8 h
Glove thickness : 0.5 mm

Eye protection

Advice : Safety glasses with side-shields conforming to EN166
Tightly fitting safety goggles

Skin and body protection

Advice : alkali resistant protective clothing
(EN 340)

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 responsible for such cases.

Sodium hypochlorite 10-15% (All grades)**Section 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	:	> 11
Melting point/range	:	-17 °C
Boiling point/boiling range	:	110 °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	:	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.
Auto-ignition temperature	:	not applicable
Thermal decomposition	:	To avoid thermal decomposition, do not overheat.
Viscosity, dynamic	:	3.45 mPa.s (20 °C) (Aqueous, solution, 15 %)
Explosive properties	:	EU legislation: Not explosive
Oxidizing properties	:	Currently we do not have any information from our

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supplier about this.

9.2. Other information

No further information available.

Section 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.
Thermal decomposition : To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Materials to avoid : Acids, ammonium compounds, Acetic anhydride, Organic materials, Hydrogen peroxide, metal salts, Copper, Nickel, Iron

10.6. Hazardous decomposition products

Hazardous decomposition products : Hydrogen chloride gas, Chlorine, chlorine oxides

Section 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Oral

LD50 : 2900 - 3400 mg/kg (mouse)
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.

Dermal

LD50 : > 2000 mg/kg (rabbit)

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Irritation

Skin

Result : Severe skin irritation (rabbit) (OECD Test Guideline 404)
corrosive effects (human)

Eyes

Result : corrosive effects (rabbit)
Risk of serious damage to eyes.

Sensitisation

Result : not sensitizing (guinea pig)

Further information

Other relevant toxicity information : If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Section 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability

Persistence

Result : no data available

Biodegradability

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

12.3. Bioaccumulative potential

Bioaccumulation

Result : Bioaccumulation is not expected.

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12.4. Mobility in soil

Mobility

Result : The product is mobile in water environment.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

Result : no data available

12.6. Other adverse effects

Additional ecological information

Result : Do not flush into surface water or sanitary sewer system.
Very toxic to aquatic organisms.

Section 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 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.
- European Waste Catalogue Number : 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.

Section 14: Transport information

14.1. UN number

1791

14.2. UN proper shipping name

ADR : HYPOCHLORITE SOLUTION
RID : HYPOCHLORITE SOLUTION
IMDG : HYPOCHLORITE SOLUTION

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14.3. Transport hazard class(es)

ADR-Class (Labels; Classification Code; Hazard identification No; Tunnel restriction code)	: 8 8; C9; 80; (E)
RID-Class (Labels; Classification Code; Hazard identification No)	: 8 8; C9; 80
IMDG-Class (Labels; EmS)	: 8 8; F-A, S-B

14.4. Packaging group

ADR	: III
RID	: III
IMDG	: III

14.5. Environmental hazards

Labeling according to 5.2.1.8 ADR	: Fish and tree
Labeling according to 5.2.1.8 RID	: Fish and tree
Labeling according to 5.2.1.6.3 IMDG	: Fish and tree
Classification as environmentally hazardous according to 2.9.3 IMDG	: yes

14.6. Special precautions for user

Note	: not applicable
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG	: Not applicable.
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Section 15: Regulatory information

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

Other regulations	: Occupational restrictions: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 94/33/EC on the protection of young people at work.
	:

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

Section 16: Other information

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

R31	Contact with acids liberates toxic gas.
R34	Causes burns.
R35	Causes severe burns.
R37	Irritating to respiratory system.
R50	Very toxic to aquatic organisms.

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

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Further information

Other information : Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use. The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

|| Indicates updated section.