

# Sodium Hypochlorite Solution 5-20%

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

### 1.1 Product identifier

Product name: Sodium Hypochlorite Solution 5-20%  
 CAS Number: 7681-52-9  
 EC Number: 231-668-3

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

Identified use: Treatment of drinking water, has received approval by the European Committee for Standardisation. Washing and cleaning products. Cleaning agent. Pulp and paper manufacturing Treatment of waste water. Finishing agent (textiles) Manufacture of substances. Disinfectant.

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

Company name: East Harbour Group Ltd  
 20 Clough Road, Severalls Industrial Park  
 Colchester, Essex, CO4 9QS  
 United Kingdom

Telephone: +44 (0) 333 242 0100  
 Email: [info@eastharbourgroup.com](mailto:info@eastharbourgroup.com)

### 1.4 Emergency telephone number

Emergency telephone: 0800 246 1274

## Section 2: Hazardous identification

### 2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical Hazards

Met. Corr. 1 – H290

Health Hazards

Skin Corr. 1B – H314

Environmental Hazards

Aquatic Acute 1 – H400 Aquatic Chronic 2 – H411

Classification (67/548/EEC or 1999/45/EC)

C;R34. N;R50. R31.

Human health

Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. Corrosive to skin and eyes.

# Sodium Hypochlorite Solution 5-20%

## Environmental

The product contains a substance which is very toxic to aquatic organisms.

## Physicochemical

Contact with acids liberates toxic chlorine gas. Product may be corrosive to some metals.

## 2.2 Label elements

EC number: 231-668-3



Signal word: Danger

## Hazard statements

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

H400

Very toxic to aquatic life.

H411

Toxic to aquatic life with long lasting effects.

## Precautionary statements

P234

Keep only in original packaging.

P260

Do not breathe vapour/ spray.

P264

Wash contaminated skin thoroughly after handling.

P273

Avoid release to the environment.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair):

Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304+P340 IF INHALED:

Remove person to fresh air and keep comfortable for breathing. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P305+P351+P338 IF IN EYES:

Immediately call a POISON CENTER/ doctor.

P310

Specific treatment (see medical advice on this label).

P321

Wash contaminated clothing before reuse.

P363

Absorb spillage to prevent material damage.

P390

Collect spillage.

P391

Store locked up.

P405

Store in a corrosion-resistant container with a resistant inner liner.

P406

Dispose of contents/ container in accordance with national regulations.

P501

## Supplement Label Information

EUH031

Contact with acids liberates toxic gas.

Contains: Sodium hypochlorite

# Sodium Hypochlorite Solution 5-20%

## Section 3: Composition/information on ingredients

### 3.2 Mixtures

CAS #	Content (W/W)	Ingredients
7681-52-9	10-30%	Sodium hypochlorite
1310-73-2	<1%	Sodium hydroxide

Chemical name: Sodium Hypochlorite

Common name / synonyms: Bleach solution

## Section 4: First aid measures

### 4.1 Description of first aid measures

In case of skin contact: Remove contaminated clothing and rinse skin thoroughly with water.

In case of eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes.

If swallowed: Do not induce vomiting. If confined to the mouth, rinse mouth thoroughly and ensure water is not swallowed. If swallowed, drink plenty of water. If substance has been swallowed, give water to drink immediately.

If inhaled: Move affected person to fresh air at once. For breathing difficulties, oxygen may be necessary.

## Section 5: Fire-fighting measures

### 5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: Use fire-extinguishing media suitable for the surrounding fire.

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

Thermal decomposition will evolve Chlorine. Contact with heavy metals, their compounds and alloys the product decomposes with evolution of oxygen.

### 5.3 Advice for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## Section 6: Accidental release measures

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

Wear protective clothing as described in this safety data sheet.

# Sodium Hypochlorite Solution 5-20%

## 6.2 Environmental precautions

Do not discharge into drains or watercourses or onto the ground.

## 6.3 Methods and material for containment and cleaning up

Flush away spillage with plenty of water. Large Spillages: Absorb spillage with sand or other inert absorbent. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with eyes. Handle with care as an alkaline material. Wear appropriate protective clothing. Avoid inhalation of vapours and spray/mists. Do not mix with acids, or other cleaning fluids (especially ammonia). Do not mix with sodium bisulfite.

### 7.2 Conditions for safe storage, including any incompatibilities

Unsuitable container materials: Common metals. Store in vented vessels of rubber lined mild steel or HDPE. Uncontrolled pressure build up may occur in closed systems (vessels, pipes etc.) so all containers must have a venting device. Sludge may build up in tanks over time, due to salt deposition. Keep away from acids, ammonia solutions, amines and methanol. Keep away from heat and direct sunlight.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limits

SODIUM HYDROXIDE

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

Ingredient comments

Chlorine vapour STEL 15min 0.5 ppm, 1.5 mg/m<sup>3</sup>

DNEL

Industry - Inhalation; Long term : 1.55 mg/m<sup>3</sup>

Industry - Inhalation; Short term : 3.1 mg/m<sup>3</sup>

Consumer - Inhalation; Long term : 1.55 mg/m<sup>3</sup>

Consumer - Inhalation; Short term : 3.1 mg/m<sup>3</sup>

Consumer - Oral; Long term systemic effects: 0.26 mg/kg/day

### 8.2 Exposure controls

Provide adequate general and local exhaust ventilation.

# Sodium Hypochlorite Solution 5-20%

## 8.3 Personal protective equipment



Eye/face protection: Chemical splash goggles or face shield.

Skin protection: Plastic apron, sleeves, boots – if handling large quantities, full body suit.

Respiratory protection: For respirator use cartridge type P3 SL

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Green-yellow
<b>Physical State</b>	Liquid
<b>Odor</b>	Irritating. Chlorine.
<b>Odor Threshold</b>	No information available
<b>pH</b>	>13
<b>Melting Point/Range</b>	-17 C
<b>Boiling Point/Range</b>	110 C @ Decomposes with heat
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Explosion Limits</b>	No information available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>Specific Gravity / Density</b>	0.925 g/cm3 at 20 °C (68 °F)
<b>Relative Density</b>	5%: ~1.10 15%: 1.26 @ 20C
<b>Water Solubility</b>	Completely soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition Coefficient</b>	No information available
<b>Auto-ignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available

## Section 10: Stability and Reactivity

### 10.1 Reactivity

The following materials may react violently with the product: Acids.

Sodium bisulfite

### 10.2 Chemical Stability

Avoid the following conditions: Avoid contact with acids.

### 10.3 Possibility of hazardous reactions

Contact with acids liberates toxic chlorine gas. Reacts with amines

# Sodium Hypochlorite Solution 5-20%

## 10.4 Conditions to avoid

and ammonia to form explosive compounds, and can react violently with methanol. Reacts strongly with sodium bisulfite

Store in a cool dry place away from direct sunlight.

## 10.5 Incompatible materials

Contact with acids liberates toxic chlorine gas. Decomposition with evolution of oxygen is accelerated by heat and light, and also by contact with metals, particularly copper, nickel, iron and monel.

## 10.6 Hazardous decomposition products

Thermal decomposition will evolve toxic vapours.

## Section 11: Toxicological Information

### Product Information

#### 11.1 Acute Toxicity

Acute toxicity dermal (L50 mg/kg): 2,000.0

Species: rat

Skin corrosion/irritation

Animal data: Corrosive

Skin sensitisation: not sensitising

Germ cell mutagenicity

Genotoxicity – in vivo: This substance has no evidence of mutagenic properties.

Carcinogenicity: There is no evidence that the product can cause cancer.

Inhalation: Mist/droplets are corrosive to the respiratory tract, and will cause a burning sensation in the throat, coughing and breathing difficulties.

Ingestion: If ingested will cause severe damage to gastrointestinal tract.

Skin contact: Causes burns. Prolonged or repeated contact may cause dermatitis.

Eye contact: Risk of serious damage to eyes. A single exposure may cause the following adverse effects: Corneal damage.

# Sodium Hypochlorite Solution 5-20%

## Section 12: Ecological Information

### 12.1 Toxicity

#### Ecotoxicity effects

Acute toxicity – fish: mg/l active chlorine LC50, 96 hours: 0.01-0.1 mg/l, fish

Acute toxicity – aquatic invertebrates: EC50, 48 hours: 0.01-0.1 mg/l, Daphnia magna

Acute toxicity – aquatic plants: IC50, 72 hours: Technically unfeasible mg/l, Algae

Acute toxicity – microorganisms: LOEC,: 0.375 mg/l, Activated sludge

Persistence and degradability: The product quickly decomposes in water or soil

Bioaccumulative potential: The product is not bioaccumulating.

Mobility: The product is soluble in water.

Results of PBT and vPvB assessment: This product does not contain any substances classified as PBT or vPvB.

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and place in suitable waste disposal containers and seal securely. Dispose of waste via a licensed waste disposal contractor. Contaminated area should be washed with large amounts of water.

## Section 14: Transport Information

UN number:

ADR/RID 1791

IMDG 1791

ICAO 1791

UN proper shipping name:

ADR/RID HYPOCHLORITE SOLUTION

IMDG HYPOCHLORITE SOLUTION

ICAO HYPOCHLORITE SOLUTION

AND HYPOCHLORITE SOLUTION

Transport hazard classes

ADR/RID class 8

ADR/RID label 8

IMDG class 8

# Sodium Hypochlorite Solution 5-20%

ICAO class/division 8

Transport labels



Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

Environmental hazards

Environmentally hazardous substance/marine pollutant



Special precautions for user

EmS F-A, S-B

Emergency Action Code 2X

Hazard Identification Number 80

Tunnel restriction code (E)

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## Section 15: Regulatory Information

EU legislation: This product has been approved as a chemical used for the treatment of drinking water, under the appropriate BS EN Standard (see Sales Specification), and so it is also approved under Regulation 31 of the Water Supply (Water Quality) Regulations 2000. Regulation (EC) No 1907/2006 of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Directive 98/8/EC of the European Parliament and of the Council of 16 February 1998 concerning the placing of biocidal products on the market.