

# SAFETY DATA SHEET

Sodium hypochlorite solution

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE

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### 1.1 Product identification

Product name: Sodium hypochlorite solution

Synonyms/Trade Names: Commonly called disinfection water (concentration < 1%)

General characteristics: exists in solution at room temperature, has faint odour of chlorine, non-combustible under normal conditions, mixing hypochlorite solution with other household cleaners can produce corrosive gases.

### 1.2. Relevant identified uses of the substance

0.015 – 0.02 % (0.015 – 0.150-200mg/L) - Disinfection in the home, office, elevator, vehicle, handrails, etc; Hygienic hand rub.

>0.02% >300mg/L - Medical grade: sterilization of bacteria prone items, such as wet clothes, mops.

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

Osmio Solutions LTD, Site Office  
Buckland Lake Reserve,  
Buckland Road, Cliffe,  
Kent ME3 7RT  
info@osmiowater.co.uk  
0330 113 7181

## SECTION 2: HAZARDS IDENTIFICATION

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### 2.1. Classification of the substance or mixture

Hazard: Not classified as hazardous

Classification: NON-HAZARDOUS SUBSTANCE

NON-DANGEROUS GOODS

Risk Phrase(s): Not classified as hazardous

Environmental: Non-hazardous

Hazards: Not classified as hazardous

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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Composition:	CAS No.	Proportion
Na Cl	N/A	12 g

Water	7732-18-5	500 ml
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Solution produced: Sodium Hypochlorite 7681-52-9

Concentration: 0.01% - 0.02%

**Mixtures:**

Sodium Hypochlorite 0.015 – 0.02%

Components: H<sub>2</sub>O (500 ml) + NaCl (12 g)

Water electrolysis cycle length: 5 minutes

CAS-No.: 7681-52-9

Sodium Hypochlorite >0.02%

Components: H<sub>2</sub>O (500 ml) + NaCl (12 g)

Water electrolysis cycle length: 10 minutes

CAS-No.: 7681-52-9

Gross Formula H<sub>2</sub>O + NaCl

Composition:	CAS No.	Proportion
Na Cl	N/A	12 g
Water	7732-18-5	500 ml

Solution produced: Sodium Hypochlorite 7681-52-9

Concentration: 0.01% - 0.02% (<0.02%)

**SECTION 4: FIRST AID MEASURES**

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**4.1. Description of first aid measures**

**Swallowed:** Rinse mouth thoroughly, give water to drink.

**Eye:** Rinse thoroughly with plenty of water. Eyelids should be held away from eyeball to ensure thorough rinsing. Seek medical advice if irritation persists.

**Skin:** Remove contaminated clothing and wash before re-use.

**Inhaled:** Solution is non-volatile at room temperature. If solution inhaled into the airways seek immediate medical attention.

**First Aid Facilities:** Eye wash facilities should be provided in the workplace.

**Advise to Doctor:** No additional information available.

## **SECTION 5: FIREFIGHTING MEASURES**

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### **5.1. Extinguishing media**

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

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

Hazardous combustion products: 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**

PPE advice for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

PPE for higher concentration solution is described in Section 8 of this SDS.

### **6.2. Environmental precautions**

Do not discharge onto the ground and watercourses.

### **6.3. Methods and material for containment and cleaning up**

Small spillages: Absorb the spillage with the paper towel and flush away small spillages with water. Material can be disposed of with general waste or via the normal sewer systems.

Large spillages: Absorb with the paper towel or other absorbent. Store in sealed for disposal. Material can be disposed of with general waste or via the normal sewer systems.

## **SECTION 7: HANDLING AND STORAGE**

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### **7.1. Precautions for safe handling**

Avoid contact with eyes. Handle with care as a slightly alkaline substance. Avoid inhalation of vapours and spray mists. Do not mix with acids, or other cleaning fluids (especially ammonia).

Disinfection hypochlorite water has a slight bleaching effect on fabric. Do not use it for disinfection of coloured or dark clothes. Do not use it to soak silk or leather.

### **7.2. Conditions for safe storage**

Sodium hypochlorite disinfection water has an oxidizing effect on metals. Do not store it with metal utensils. When disinfecting metal utensils, please wash them thoroughly with water immediately and wipe clean.

Store in a cool place at temperatures between 8°C and 30 °C. Do NOT freeze.


## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Occupational standards

Chlorine	LTEL (8-hour reference period)		STEL (15-min reference period)	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
WEL (workplace exposure limit)	-	-	-	-
LTEL – long-term exposure limit	-	-	-	-
STEL – short-term exposure limit	-	-	-	-

### 8.2. Exposure controls

Personal protective equipment (PPE) is not required for 0.01% concentration but it is advisable to use Rubber, latex or PVC gloves for >0.02% concentration.

Protective equipment		
Concentration	0.015 -0.02%	>0.02%
PPE	NOT REQUIRED	

#### Process conditions

Provide eyewash station.

#### Engineering measures

Provide adequate general and local exhaust ventilation.

#### Hand protection

Required only when using >0.02% for surfaces disinfection (Rubber, latex or PVC gloves).

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 3.1 Physicochemical Properties

CAS number: 7681-52-9

Molecular weight: 74

Formula: NaClO

Concentration 0.01% - 0.02%

State at room temperature: liquid form

Flammability: Non-flammable

Lower explosive limit – n/a

Upper explosive limit – n/a

Water solubility: Soluble in water

Odour: faint odour of chlorine

Colour: Transparent/Clear

## **SECTION 10: STABILITY AND REACTIVITY**

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### **10.1 Chemical reactivity**

Reacting violently with acids. Corrosive to metals.

Reaction or degradation products: Decomposes on heating and on contact with acids and under the influence of light, this produces toxic and corrosive gases including chlorine. Will liberate chloramines if mixed with ammonia.

### **10.2 Conditions to avoid**

Store in a cool dry place away from direct sunlight.

### **10.3 Incompatible materials**

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

### **10.4 Hazardous decomposition products**

Do not boil or heat the solution. Thermal decomposition will evolve toxic vapours.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

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### **11.1. Information on toxicological effects**

#### **Acute**

Ingestion: May cause mild gastrointestinal irritation with nausea and vomiting.

Eye: Solution may sting eyes.

Skin: May irritate broken skin.

Inhaled: No data.

#### **Chronic**

No data

## **SECTION 12: ECOLOGICAL INFORMATION**

## Ecological

It is unknown as to the long term effects on the aquatic environment.

## Biodegradability

The sodium hypochlorite 0.01% – 0.02% solution is readily broken down by environmental factors to a dilute solution of sodium chloride (salt).

## SECTION 13: DISPOSAL CONSIDERATIONS

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### 13.1 Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

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U.N. Number: Not applicable

Dangerous Goods Class: Not applicable

Hazchem Code: Not applicable

Subsidiary Risk: Not applicable

CAS Number: See ingredients

Pack. Group.: Not applicable

This product is not considered to be a dangerous good within the meaning of transportation regulations.

## SECTION 15: REGULATORY INFORMATION

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**Certifications:** The Osmio Sanser Spray 500ml is compliant with BS EN 1276 & BS EN 1500

**BS EN 1276:** Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas.

For the product, Osmio Sanser Spray Hand Hygiene/General Purpose Disinfectant (10min cycle), [After Production] the log reduction requirements as specified in EN 1276:2019 (5 lg within the relevant contact time) were met in dirty conditions for a contact time of 60 seconds.

**BS EN 1500:** Chemical disinfectants and antiseptics. Hygienic hand rub.

The test product was not inferior to the reference product and hence has met the requirements of EN 1500.

## SECTION 16: OTHER INFORMATION

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Product is considered safe if used as intended.

**SDS Version:** 1.0

**Revision Comments:** n/a

**Abbreviations used:**

SDS – Safety Data Sheet

PPE – Personal Protective Equipment

Disclaimer:

This information relates only to the low concentration solution specified above and may not be valid for such material used in combination with any other materials or in any process. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.