



Chem2o LLC  
690 Mountain Top Road  
Herndon, PA 17830  
717-362-3333

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** SODIUM HYPOCHLORITE 12.5% SOLUTION

### Other means of identification

**Synonyms:** Bleach  
**CAS NUMBERS:** 7681-52-9

### Recommended use and restriction on use

**Recommended use:** Reserved for industrial and professional use.

**Restrictions on use:** Not known.

**Supplier:** Chem2o LLC  
690 Mountain Top Road  
Herndon, PA 17830  
717-362-3333

**Emergency Phone:** For Chemical Emergency  
Spill, Leak, Fire, or Accident  
Call **CHEMTREC** Day or Night  
Within USA and Canada: 1-800-424-9300

## 2. Hazard(s) identification

### Hazard Classification

#### Physical Hazards

Corrosive to metals Category 1

#### Health Hazards

Acute toxicity (Oral) Category 4  
Skin Corrosion/Irritation Category 1  
Serious Eye Damage/Eye Irritation Category 1

#### Environmental Hazards

Acute hazards to the aquatic environment Category 1

## Label Elements

### Hazard Symbol



### Signal Word

Danger

### Hazard Statement

May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.  
Very toxic to aquatic life.

### Precautionary Statements

### Prevention

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust or mists. Wear protective gloves/protective clothing/eye protection/face protection.

### Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

### Storage

Store locked up.

**Disposal**

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification**

None.

**3. Composition/information on ingredients**

**Substances**

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
Sodium hypochlorite		7681-52-9	10 – 16%
Sodium hydroxide		1310-73-2	0.3 – 5%
Water		7732-18-5	80 – 89.7%

\*All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

**General information:**

Get medical advice/attention.

**Ingestion:**

Do NOT induce vomiting. Never give liquid to an unconscious person. Get medical attention immediately.

**Inhalation:**

Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.

**Skin contact:**

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Eye contact:**

If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**Most important symptoms/effects, acute and delayed**

**Symptoms:**

No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:**

Symptoms may be delayed.

**5. Fire-fighting measures**

**General Fire Hazards:**

No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:**

Use: Foam. Carbon dioxide or dry powder.

**Unsuitable extinguishing media:**

No data available.

**Specific hazards arising from the chemical:**

During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire-fighting procedures:**

No data available.



**Special protective equipment for fire-fighters:**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**Methods and material for containment and cleaning up:**

Absorb spillage with non-combustible, absorbent material.

**Notification Procedures:**

Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

**Environmental Precautions:**

Do not contaminate water sources or sewer. Avoid release to the environment.

**7. Handling and Storage**

**Precautions for safe handling:**

Do not taste or swallow. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:**

Do not get in eyes. Do not get in eyes, on skin, on clothing. Store locked up.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Sodium hydroxide	Ceiling	2 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Sodium hydroxide – Particulate	ST ESL	20 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	2 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
Sodium hydroxide	Ceiling	2 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	Ceiling	2 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2016)
	Ceil_Time	2 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	2 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	Ceiling	2 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

**Appropriate Engineering Controls:**

Adequate ventilation should be provided so that exposure limits are not exceeded.

### Individual protection measures, such as personal protective equipment

<b>General information:</b>	Provide easy access to water supply and eye wash facilities. Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
<b>Eye/face protection:</b>	Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin Protection</b>	
<b>Hand protection:</b>	Chemical resistant gloves
<b>Other:</b>	Chemical resistant clothing
<b>Respiratory protection:</b>	In case of inadequate ventilation use suitable respirator.
<b>Hygiene measures:</b>	Do not eat, drink or smoke when using the product. Wash hands after handling. Do not get in eyes. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product.

<b>9. Physical and chemical properties</b>
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<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Pale yellow-green, Clear
<b>Odor:</b>	Odor of chlorine
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	10 – 12
<b>Melting point/freezing point:</b>	-20 °C
<b>Initial boiling point and boiling range:</b>	> 40 °C
<b>Flash point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit – upper (%):</b>	No data available.
<b>Flammability limit – lower (%):</b>	No data available.
<b>Explosive limit – upper (%):</b>	No data available.
<b>Explosive limit – lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	1.224
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Soluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient</b>	No data available.
<b>(n-octanol/water):</b>	
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Stable
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	Oxidizers, acids Ammonia. Amines.
<b>Hazardous Decomposition Products:</b>	By heating and fire, toxic vapors/gases may be formed.

## 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye Contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

##### Oral

**Product:** LD50 (Rat): 3 – 5 g/kg

##### Dermal

**Product:** LD50 (Rabbit): > 2 g/kg

##### Inhalation

**Product:** May be harmful if inhaled.

##### Repeated dose toxicity

**Product:** No data available.

### Skin Corrosion/Irritation

**Product:** Causes severe skin burns.

### Serious Eye Damage/Eye Irritation

**Product:** Causes serious eye damage.

### Respiratory or Skin Sensitization

**Product:** Not a skin sensitizer.

### Carcinogenicity:

**Product:** No data available.

#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

#### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

### Germ Cell Mutagenicity

#### In vitro

**Product:** No data available.

#### In vivo

**Product:** No data available.

### Reproductive toxicity

**Product:** No data available.

<b>Specific Target Organ Toxicity – Single Exposure</b>	
Product:	No data available.
<b>Specific Target Organ Toxicity – Repeated Exposure</b>	
Product:	No data available.
<b>Aspiration Hazard</b>	
Product:	No data available.
<b>Other effects:</b>	No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

Product:	LC50 (Shiner perch ( <i>Cymatogaster aggregata</i> ), 96 h): 0.033 - 0.097 mg/l LC50 (Bluegill ( <i>Lepomis macrochirus</i> ), 48 h): 0.6 mg/l
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##### Aquatic Invertebrates

Product:	LC50 (Aquatic crustacea): 1 mg/l LC50 ( <i>Daphnia magna</i> , 96 h): 2.1 mg/l
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#### Chronic hazards to the aquatic environment:

##### Fish

Product:	No data available.
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##### Aquatic Invertebrates

Product:	No data available.
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##### Toxicity to Aquatic Plants

Product:	EC50 (Green algae ( <i>Dunaliella bioculata</i> ), 24 h): 0.6 mg/l
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### Persistence and Degradability

#### Biodegradation

Product:	The product solely consists of inorganic compounds which are not biodegradable.
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#### BOD/COD Ratio

Product:	No data available.
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### Bioaccumulative Potential

#### Bioconcentration Factor (BCF)

Product:	The product is not bioaccumulating.
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#### Partition Coefficient n-octanol / water (log K<sub>ow</sub>)

Product:	No data available.
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### Mobility in Soil:

No data available.

#### Known or predicted distribution to environmental compartments

Sodium hypochlorite No data available.

Sodium hydroxide No data available.

Water No data available.

#### Known or predicted distribution to environmental compartments

Water No data available.

### 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

**Contaminated Packaging:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

UN Number: UN 1791  
 UN Proper Shipping Name: Hypochlorite solutions  
 Transport Hazard Class(es)  
     Class: 8  
     Label(s): 8  
 Packing Group: III  
 Marine Pollutant: Marine Pollutant  
 Special precautions for user: -

#### IMDG

UN Number: UN 1791  
 UN Proper Shipping Name: HYPOCHLORITE SOLUTION  
 Transport Hazard Class(es)  
     Class: 8  
     Label(s): 8  
     EmS No.: F-A, S-B  
 Packing Group: III  
 Marine Pollutant: Not regulated.  
 Special precautions for user: -

### 15. Regulatory information

#### US Federal Regulations US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

Sodium hypochlorite Reportable quantity: 100 lbs.  
 Sodium hydroxide Reportable quantity: 1000 lbs.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Acute (Immediate)  Chronic (Delayed)  Fire  Reactive  Pressure Generating

#### SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

#### SARA 304 Emergency Release Notification

Chemical Identity	RQ
Sodium hypochlorite	100 lbs.
Sodium hydroxide	1000 lbs.

**SARA 311/312 Hazardous Chemical**

<b>Chemical Identity</b>	<b>Threshold Planning Quantity</b>
Sodium hypochlorite	10,000 lbs
Sodium hydroxide	10,000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

Sodium hypochlorite	Reportable quantity: 100 lbs.
Sodium hydroxide	Reportable quantity: 1000 lbs.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

Sodium hypochlorite	Listed
Sodium hydroxide	Listed

**US. Massachusetts RTK – Substance List**

Sodium hypochlorite	Listed
Sodium hydroxide	Listed

**US. Pennsylvania RTK – Hazardous Substances**

Sodium hypochlorite	Listed
Sodium hydroxide	Listed

**US. Rhode Island RTK**

Sodium hypochlorite	Listed
Sodium hydroxide	Listed

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EU EINECS List:	On or in compliance with the inventory
EU ELINCS List:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing	On or in compliance with the inventory
Chemical Substances:	
Korea Existing Chemicals	On or in compliance with the inventory
Inv. (KECI):	
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
New Zealand Inventory of	On or in compliance with the inventory
Chemicals:	
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory

**16. Other information, including date of preparation or last revision**

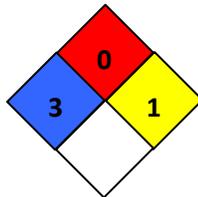
**HMIS Hazard ID**

<b>Health</b>	<b>3</b>
<b>Flammability</b>	<b>0</b>
<b>Physical Hazards</b>	<b>1</b>
<b>PERSONAL PROTECTION</b>	<b>B</b>

B – Safety Glasses & Gloves

Hazard rating: 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe;  
RNP – Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



Flammability  
Health  
Reactivity  
Special hazard

Hazard rating: 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe;  
RNP – Rating not possible

**Issue Date:** 5/23/2018  
**Revision Date:** No data available.  
**Further Information:** No data available.