

Conforms to HCS 2012 – United States



## SAFETY DATA SHEET

### SODIUM HYPOCHLORITE 12.5%

Version 1.18 Revision Date: 02/10/2022

## SECTION 1 - IDENTIFICATION OF PREPARATION

**Green Air Products identifier** : SODIUM HYPOCHLORITE 12.5% BLEACH

**Application** : Reserved for industrial and professional use

**Manufacturer Identification** : Green Air Products  
PO Box 1410  
Boring, OR 97009  
Tel: (503) 663-2000

**Emergency telephone (w/ hours of operation)** : Green Air Products, U.S. : +1-503-663-2000 Tue – Friday 9:00am to 4 pm

## SECTION 2 - HAZARD IDENTIFICATION

**OSHA/HCS status** : Category 1

**Corrosive to metals** : Category 1

**Skin corrosion** : Category 1

**Serious eye damage** : Category 1

### GHS label elements



**Hazard Pictograms** :

**Signal word** : DANGER

**Hazard statements** : H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

### Precautionary statements

<b>Prevention</b>	: P2P234 Keep only in original container. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
<b>Response</b>	: 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/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage.
<b>Storage</b>	: P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner.
<b>Disposal</b>	: P501 Dispose of contents/ container to an approved waste disposal plant.
<b>Hazards not otherwise classified (HNOC)</b>	: None known.

## SECTION 4 – COMPOSITION/INFORMATION ON INGREDIENTS

### Substance / Mixture : Mixture

CAS-No.	Chemical name	Weight percent
7681-52-9	Sodium hypochlorite	12.5
1310-73-2	Sodium hydroxide	0 – 5

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

**Synonyms** : Liquichlor, Bleach,

## SECTION 5 – FIRST AID MEASURES

<b>General advice</b>	: Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
<b>If inhaled</b>	: Take victim immediately to hospital. Move to fresh air. If breathing has stopped, apply artificial respiration. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician
<b>In case of skin contact</b>	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing. If irritation develops, get medical attention. Burns must be treated by a physician

**In case of eye contact** : In case of eye contact Immediately flush eye(s) with plenty of water. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If easy to do, remove contact lens, if worn. If eye irritation persists, consult a specialist. Take victim immediately to hospital.

**If swallowed** : Take victim immediately to hospital. Do NOT induce vomiting. Rinse mouth with water. If victim is fully conscious, give a cupful of water. If a person vomits when lying on his back, place him in the recovery position.

## SECTION 5 – FIRE FIGHTING MEASURES

**Suitable extinguishing media** : Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

**Unsuitable extinguishing media** : High volume water jet

**Specific hazards during firefighting** : Do not allow run-off from fire fighting to enter drains or water courses

**Hazardous combustion Products** : No hazardous combustion products are known

**Further information** : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Special protective for firefighters** : Wear self-contained breathing apparatus for firefighting if necessary.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### In case of accidental spill or release. Personal precautions equipment and emergency procedures

**Personal precautions, protective equipment & emergency procedures** : Use personal protective equipment

**For emergency responders** : If specialized clothing is required to deal with spillage, take note of any information in section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.

**Environmental precautions** : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

**Methods and materials for containment and cleaning up** : Neutralize with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal

## SECTION 7 – HANDLING AND STORAGE

**Advice on protection against fire and explosion** : Normal measures for preventive fire protection.

**Advice on safe handling** : Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations

**Conditions for safe storage** : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

## SECTION 8 – EXPOSURE CONTROL/PERSONAL PROTECTION

### Components with workplace control parameters

<u>CAS-No.</u>	<u>Components</u>	<u>Value type</u> (Form of exposure)	<u>Control parameters</u> / Permissible concentration	<u>Basis</u>
7681-52-9	Sodium hypochlorite	STEL	2 mg/m <sup>3</sup>	US WEEL
1310-73-2	Sodium hydroxide	C	2 mg/m <sup>3</sup>	ACGIH
		C	2 mg/m <sup>3</sup>	NIOSH REL
		TWA	2 mg/m <sup>3</sup>	OSHA Z-1
		C	2 mg/m <sup>3</sup>	OSHA PO
		C	2 mg/m <sup>3</sup>	CAL PEL

### Personal protective equipment

**Respiratory protection** : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any

potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

<b>Hand Protection</b>	: The suitability for a specific workplace should be discussed with the producers of the protective gloves..
<b>Eye protection</b>	: Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
<b>Skin and body protection</b>	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
<b>Hygiene measures</b>	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

<b>Physical state</b>	: Liquid [Aqueous solution]
<b>Color</b>	: Clear Yellow
<b>Odor</b>	: Chlorine
<b>pH</b>	: 11.5 - 13
<b>Freezing Point</b>	: -20 - -15 °C (-4 - 5 °F)
<b>Flash Point</b>	: Not Flammable
<b>Evaporation Rate</b>	: N/A
<b>Flammability (solid, gas)</b>	: N/A
<b>Upper explosion limit</b>	: N/A
<b>Lower explosion limit</b>	: N/A
<b>Vapour pressure</b>	: 12 - 17.5 mmHg @ 20 °C (68 °F)
<b>Relative vapour density</b>	: No data available
<b>Relative density</b>	: 1.17 @ 20 °C (68 °F) Reference substance: (water = 1)
<b>Density</b>	: 1.17 g/cm <sup>3</sup>
<b>Solubility(ies) Water solubility</b>	: completely soluble
<b>Solubility in other solvents</b>	: No data available
<b>Partition coefficient noctanol/water</b>	: No data available
<b>Auto-ignition temperature</b>	: No data available
<b>Thermal decomposition</b>	: No data available
<b>Conditions to avoid</b>	: Keep away

## SECTION 10 – STABILITY AND REACTIVITY

<b>Reactivity</b>	: No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	: Stable
<b>Possibility of hazardous</b>	: No hazards to be specially mentioned.
<b>Reactions</b>	
<b>Conditions to avoid</b>	: Keep away from heat, flame, sparks and other ignition sources
<b>Incompatible materials</b>	: Acids, Combustible material, Halogenated compounds, Metals, metal salts, Organic materials, organic nitro compounds, Zinc

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Acute toxicity

Components

7681-52-9

Acute oral toxicity: LD50 (Rat, male): > 2,000 mg/kg

### Skin corrosion/irritation

Components:

7681-52-9:

Species: Rabbit

Result: Causes burns.

1310-73-2:

Species: Rabbit

Result: Causes severe burns

### Serious eye damage/eye irritation

Components:

7681-52-9:

Species: Rabbit

Result: Risk of serious damage to eyes.

1310-73-2:

Species: Rabbit

Result: Risk of serious damage to eyes.

### Carcinogenicity

**IARC**

: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**STOT - single exposure**

Components: 7681-52-9:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation

**Further information**

Product:

Remarks: No data available

## SECTION 12 – ECOLOGICAL INFORMATION

**ECOTOXICITY**

**Components:**

7681-52-9

**Toxicity to fish** : LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l  
Exposure time: 96 h  
Test Type: flow-through test  
LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l Exposure time: 96 h  
Test Type: static test

**Toxicity to daphnia and other aquatic invertebrates** : EC50 (Daphnia magna (Water flea)): 0.141 mg/l Exposure time: 48 h  
Test Type: flow through test. EC50 (Ceriodaphnia dubia): 0.035 mg/l  
Exposure time: 48 h  
Test Type: flow-through test

**Toxicity to algae** : IC50: 0.023 mg/l  
Exposure time: 7 d  
Test Type: flow-through test

**M-Factor** : 10

**(Acute aquatic toxicity)**

**Acute aquatic toxicity** : Very toxic to aquatic life

**- Assessment**

**Chronic aquatic toxicity** : Toxic to aquatic life with long lasting effects

**- Assessment**

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:****Ozone-Depletion Potential**

: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B)

**Additional ecological info**

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

## SECTION 13 – ECOLOGICAL INFORMATION

**Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact *GREEN AIR PRODUCTS : 1-503-663-2000*

**Contaminated packaging**

: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

## SECTION 15 – TRANSPORTATION INFORMATION

**DOT (Department of Transportation):** UN1791, Hypochlorite solutions, 8, III , Marine Pollutant (SODIUM HYPOCHLORITE)

**IATA (International Air Transport Association):** UN1791, Hypochlorite solution, 8, III

**IMDG (International Maritime Dangerous Goods):** UN1791, HYPOCHLORITE SOLUTION, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

## SECTION 15 – REGULATORY INFORMATION

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hypochlorite	7681-52-9	100	800
Sodium hydroxide	1310-73-2	1000	20000

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A: 7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3: 7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### Massachusetts Right To Know

7681-52-9 Sodium hypochlorite

1310-73-2 Sodium hydroxide

**Pennsylvania Right To Know**

7732-18-5 Water

7681-52-9 Sodium hypochlorite

1310-73-2 Sodium hydroxide

**California Prop 65**

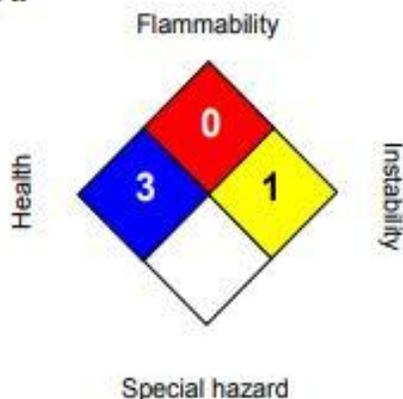
: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

- TSCA** : On TSCA Inventory
- DSL** : All components of this product are on the Canadian DSL
- AICS** : On the inventory, or in compliance with the inventory
- NZIoC** : Not in compliance with the inventory
- ENCS** : On the inventory, or in compliance with the inventory
- KECI** : On the inventory, or in compliance with the inventory
- PICCS** : On the inventory, or in compliance with the inventory
- IECSC** : On the inventory, or in compliance with the inventory

**SECTION 16 – OTHER INFORMATION**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>3/</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>1</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 =Extreme, \* = Chronic

<b>Key or legend to abbreviations and acronyms used in the safety data sheet</b>			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

## History

**Date of issue** : 12/6/2023

**Date of previous issue** : 2023

**Version** : 1.1

**Prepared by** : Green Air Products

## Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.