

SAFETY DATA SHEET

Issuing Date 18-Sep-2013

Revision Date 6-oct-2016

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Sodium Hypochlorite 15% by volume or 12.5% by weight

Other means of identification

UN-Number UN1791

Synonyms Liquid Chlorine Bleach, Liquid Bleach

Recommended use of the chemical and restrictions on use

Recommended Use Microbiocide

Uses advised against No information available

Supplier's details

Supplier Address

AgroChem, Inc.
26 Freedom Way
Saratoga Springs, NY 12866
518-226-4850

Emergency telephone number

Company Emergency Phone Number 518-226-4850

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 1 Subcategory 1B
Serious Eye Damage/Eye Irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger
Hazard Statements
• Causes severe skin burns and eye damage

**Appearance** Greenish-yellow**Physical State** Liquid.**Odor** Chlorine**Precautionary Statements****Prevention**

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection.

General Advice

- Immediately call a POISON CENTER or doctor/physician.

Eyes

- 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 or doctor/physician.

Skin

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse.

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage

- Store locked up.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS**Synonyms**

Liquid Chlorine Bleach, Liquid Bleach

Chemical Name	CAS-No	Weight %	Trade secret
Sodium hypochlorite	7681-52-9	13.2-14.1	*
Sodium hydroxide	1310-73-2	0.2-0.6	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Drink plenty of water. Do NOT induce vomiting. Consult a physician if necessary

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Cool containers with flooding quantities of water until well after fire is out.

Small Fires CO₂, dry chemical, or water spray.

Large Fires If water is necessary to fight fire, use in flooding quantities.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

In case of fire, hazardous concentrations of chlorine may be formed.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Methods for Containment Dike to contain spill. Suppress vapors with water spray.

Methods for Cleaning Up Absorb spilled material with an absorbent material such as clay, sawdust, or sand. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not take internally. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures below 15-21°C / 60-70°F. Keep away from direct sunlight.

Incompatible Products Iron. Copper. Acids. Ammonium compounds. Organic material. Oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical splash goggles.
Skin and Body Protection Neoprene gloves.
Respiratory Protection None required under normal usage. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Greenish-yellow
Odor	Chlorine	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	12	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		

upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	1.1980-1.2100	None known
Water Solubility	Miscible with water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Flammable Properties	Not flammable	
Explosive Properties	No data available	
Oxidizing Properties	No data available	
<u>Other information</u>		
VOC Content (%)	No data available	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Incompatible products. Keep away from direct sunlight. Excessive heat. Ultraviolet light.

Incompatible materials

Iron. Copper. Acids. Ammonium compounds. Organic material. Oxidizing agents.

Hazardous decomposition products

Chlorine gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

May cause irritation of respiratory tract.

Eye Contact

Causes serious eye damage. Corrosive to the eyes and may cause severe damage including blindness.

Skin Contact

Corrosive. Causes severe skin burns.

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite		Group 3		

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration Hazard No information available.

Numerical measures of toxicity - Product**Acute Toxicity**

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral 3546 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Sodium hypochlorite 7681-52-9	EC50 24 h: = 0.095 mg/L (Skeletonema costatum)	LC50 96 h: 0.03 - 0.19 mg/L semi-static (Oncorhynchus mykiss) LC50 96 h: 0.05 - 0.771 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: 0.06 - 0.11 mg/L flow-through (Pimephales promelas) LC50 96 h: 0.18 - 0.22 mg/L static (Oncorhynchus mykiss) LC50 96 h: 0.28 - 1 mg/L flow-through (Lepomis macrochirus) LC50 96 h: 0.4 - 0.8 mg/L static (Lepomis macrochirus) LC50 96 h: 4.5 - 7.6 mg/L static (Pimephales promelas)		EC50 48 h: 0.033 - 0.044 mg/L Static (Daphnia magna) EC50 96 h: = 2.1 mg/L (Daphnia magna)
Sodium hydroxide 1310-73-2		LC50 96 h: = 45.4 mg/L static (Oncorhynchus mykiss)		

Persistence and Degradability No information available.

Bioaccumulation No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations

Contaminated Packaging Do not re-use empty containers.

Chemical Name	California Hazardous Waste
Sodium hypochlorite	Toxic Ignitable Reactive
Sodium hydroxide	Toxic Corrosive

14. TRANSPORT INFORMATION

DOT

UN-Number UN1791
Proper shipping name Hypochlorite solutions
Hazard Class 8
Packing Group III
Reportable Quantity (RQ) Sodium hypochlorite: RQ kg= 321.99
Description UN1791, Hypochlorite solutions (Sodium Hypochlorite), 8, III, Marine Pollutant, RQ
Emergency Response Guide Number 154

TDG

UN-Number UN1791
Proper Shipping Name Hypochlorite solution
Hazard Class 8
Packing Group III
Description UN1791, Hypochlorite solution, 8, III

UN-Number UN1791
Proper Shipping Name Hypochlorite solution
Hazard Class 8
Packing Group III
Description UN1791, Hypochlorite solution, 8, III

ICAO

UN-Number UN1791
Proper shipping name Hypochlorite solution
Hazard Class 8
Packing Group III
Description UN1791, Hypochlorite solution, 8, III

IATA

UN-Number UN1791
Proper Shipping Name Hypochlorite solution
Hazard Class 8
Packing Group III
ERG Code 8L
Description UN1791, Hypochlorite solution, 8, III

IMDG/IMO

UN-Number UN1791
Proper Shipping Name Hypochlorite solution
Hazard Class 8
Packing Group III
EmS No. F-A, S-B
Description UN1791, Hypochlorite solution, 8, III

UN-Number UN1791

Proper Shipping Name	Hypochlorite solution
Hazard Class	8
Packing Group	III
Classification Code	C9
Description	UN1791, Hypochlorite solution, 8, III

ADR

UN-Number	UN1791
Proper Shipping Name	Hypochlorite solution
Hazard Class	8
Packing Group	III
Classification Code	C9
Tunnel Restriction Code	(E)
Description	UN1791, Hypochlorite solution, 8, III, (E)
ADR/RID-Labels	8

Proper Shipping Name	Hypochlorite solution
Hazard Class	8
Packing Group	III
Classification Code	C9
Special Provisions	521
Description	UN1791, Hypochlorite solution, 8, III
Limited Quantity	5 L

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite	100 lb			X

Sodium hydroxide	1000 lb			X
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CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Sodium hydroxide	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Sodium hypochlorite	X	X	X		
Sodium hydroxide	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 3	Flammability 0	Instability 2	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazard 3	Flammability 0	Physical Hazard 2	

Prepared By AgroChem, Inc.
26 Freedom Way
Saratoga Springs, NY 12866
518-226-4850

Issuing Date

18-Sep-2013

Revision Note

6-Oct-2016
Updated DOT description.

General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information 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.

End of Safety Data Sheet