



FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE  
USA: 1-423-780-2970)  
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE  
USA: 1-703-527-3887)  
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE  
USA: 1-423-780-2347)

PRODUCT NAME: **HTH Liquid Chlorinator**  
EPA Registration Number: 1258-1094

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Arch Chemicals, Inc.</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	04/07/2016
	SUPERCEDES:	05/27/2015
	MSDS Number:	000000023255
	SYNONYMS:	Liquid bleach
	CHEMICAL FAMILY:	Hypochlorite
DESCRIPTION / USE	swimming pool sanitizer	
FORMULA:	NaOCl In Water	

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Skin corrosion : Category 1B  
Serious eye damage : Category 1  
Specific target organ toxicity -  
single exposure : Category 3 (Respiratory system)

### GHS label elements

Hazard pictograms :  

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**



P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

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.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
SODIUM HYPOCHLORITE	7681-52-9	7.0 - 15.0
Water	7732-18-5	73.0 - 87.0
Sodium hydroxide	1310-73-2	0.5 - 2.5
SODIUM CHLORIDE	7647-14-5	5.0 - 11.0



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## SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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## SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive.
<u>Flammable Properties</u>	
Flash Point:	Not applicable
Autoignition Temperature:	Not applicable
Fire / Explosion Hazards:	Material will not ignite or burn. Will release oxygen when heated, intensifying a fire
Extinguishing Media:	Choose extinguishing media suitable for surrounding materials.
Fire Fighting Instructions:	In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Upper Flammable / Explosive Limit, % in air:	Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable

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## SECTION 6. ACCIDENTAL RELEASE MEASURES



Personal Protection for Emergency Situations: Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release: Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog.

Water Release: This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Retain all contaminated water for removal and treatment.

Land Release: Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Contain all liquids for treatment or disposal.

Additional Spill Information : Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

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## **SECTION 7. HANDLING AND STORAGE**

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor.

Storage: Store this product in a cool, dry area, away from sunlight and heat to avoid deterioration. Keep from freezing.

Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible.

Respirator Type : A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.



Skin Protection : Wear impervious gloves to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body. A safety shower should be provided in the immediate work area.

Eye Protection: Use chemical goggles and a faceshield. Emergency eyewash should be provided in the immediate work area.

Protective Clothing Type: Neoprene, Nitrile, Natural Rubber

**Components with workplace control parameters**

Components (CAS-No.)	Value	Control parameters	Basis (Update)
SODIUM HYPOCHLORITE (7681-52-9)	STEL	2 mg/m3	WEEL (2012)
Sodium hydroxide (1310-73-2)		2 mg/m3	ACGIH (02 2014)

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: liquid  
Form: liquid  
Color: light green  
Odor: Chlorine-like  
Molecular Weight: 74.50 g/mol  
Relative density: 1.0800 - 1.2600

pH : 12.0 - 14.0  
( )

Boiling Point: No Data

Melting point/freezing point: no data available  
Density: Not applicable

Vapor Pressure: no data available  
Vapor Density: no data available  
Viscosity: no data available  
Fat Solubility: no data available  
Solubility in Water: soluble  
Partition coefficient n-octanol/water: no data available  
Evaporation Rate: no data available  
Oxidizing: no data available  
Volatiles, % by vol.: 87.500 - 94.500%  
VOC Content: no data available  
HAP Content: no data available

**SECTION 10. STABILITY AND REACTIVITY**



Stability and Reactivity Summary: Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge. Product will not undergo hazardous polymerization.

Conditions to Avoid: Sparks, open flame, other ignition sources, and elevated temperatures., Avoid direct exposure to sunlight or ultraviolet (UV) light sources., Avoid freezing.

Chemical Incompatibility: Iron, copper, Acids, ammonium compounds, Organic materials, Oxidizing

Hazardous Decomposition Products: Chlorine containing gases

Decomposition Temperature: no data available

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

SODIUM HYPOCHLORITE LD50 = 8,910 mg/kg Rat

Sodium hydroxide LD50 ca. 300 - 500 mg/kg Rat

SODIUM CHLORIDE LD50 = 3,000 mg/kg Rat

### Component Animal Toxicology

#### Dermal LD50 value:

SODIUM HYPOCHLORITE LD50 > 2,000 mg/kg Rabbit

Sodium hydroxide no data available

SODIUM CHLORIDE LD50 > 10,000 mg/kg Rabbit

### Component Animal Toxicology

#### Inhalation LC50 value:

SODIUM HYPOCHLORITE Inhalation LC50 1 h > 10.5 mg/l Rat

Sodium hydroxide no data available

SODIUM CHLORIDE Inhalation LC50 1 h > 42 mg/l Rat

### Product Animal Toxicity

Oral LD50 value: LD50 > 5,000 mg/kg Rat

Dermal LD50 value: LD50 > 2,000 mg/kg Rabbit

Inhalation LC50 value: Inhalation LC50 1 h > 10.5 mg/l Rat

Skin Irritation: This material is expected to be corrosive.

Eye Irritation: This material is expected to cause irreversible effects to the cornea with impairment of vision or corrosion to the eyes.

Skin Sensitization: This material tested negative for skin sensitization in animals.



Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

Reproductive and Developmental Toxicity: This product did not cause developmental effects in a study with laboratory animals.

Mutagenicity: This product has been tested for mutagenicity. Tests revealed both positive and negative results. Based on the weight of evidence, we judge this product NOT to be a mutagenic hazard.

SODIUM HYPOCHLORITE This product has been tested for mutagenicity. Tests revealed both positive and negative results. Based on the weight of evidence, we judge this product NOT to be a mutagenic hazard.

Sodium hydroxide This chemical has been shown to be non-mutagenic based on a battery of assays.

Carcinogenicity: IARC (International Agency for Research on Cancer) reviewed studies conducted with several hypochlorite salts. IARC has classified hypochlorite salts as having inadequate evidence for carcinogenicity to humans and animals. IARC therefore considers hypochlorite salts to be not classifiable as to their carcinogenicity to humans.

SODIUM HYPOCHLORITE This material did not cause cancer in long-term animal studies.

Sodium hydroxide This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

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## SECTION 12. ECOLOGICAL INFORMATION

Overview: Moderately toxic to fish and other aquatic organisms.

### Ecological Toxicity Values for: SODIUM HYPOCHLORITE

Bluegill	-	(measured, flow-through) 96 h LC50 = 2.13 mg/l
Pimephales promelas (fathead minnow)	-	(measured, flow-through) 96 h LC50 = 1.37 mg/l
Daphnia magna,	-	(static). 24 h LC50= 0.18 mg/l

### Ecological Toxicity Values for: Sodium hydroxide

Mosquito fish	-	96 h LC50 = 125 mg/l
Bluegill	-	48 h LC50 = 99 mg/l



## SECTION 13. DISPOSAL CONSIDERATIONS

**CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.**

Waste Disposal Summary : If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D002.

Disposal Methods : As a hazardous solid waste it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes : D002

## SECTION 14. TRANSPORT INFORMATION

### DOT

UN number : 1791  
Description of the goods : Hypochlorite solutions  
Class : 8  
Packing group : III  
Labels : 8  
Emergency Response : 154  
Guidebook Number

### TDG

UN number : 1791  
Description of the goods : HYPOCHLORITE SOLUTION  
Class : 8  
Packing group : III  
Labels : 8

### IATA

UN number : 1791  
Description of the goods : Hypochlorite solution  
Class : 8  
Packing group : III  
Labels : 8  
Packing instruction (cargo aircraft) : 856  
Packing instruction (passenger aircraft) : 852  
Packing instruction : Y841





**Pennsylvania Right To Know**

Sodium hypochlorite	7681-52-9
Sodium chloride	7647-14-5
Sodium hydroxide	1310-73-2

**New Jersey Right To Know**

Sodium hypochlorite	7681-52-9
Sodium chloride	7647-14-5
Sodium hydroxide	1310-73-2

**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 : This is an EPA registered pesticide.

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

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## **SECTION 16. OTHER INFORMATION**

SECTIONS REVISED: 14  
Major References : Available upon request.

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