

# SDS SAFETY DATA SHEET

SDS Number: P1001

Revised Date: 5/18/15



PETRA CHEMICAL COMPANY

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214-352-1900

For 24 hour chemical emergency information call CHEMTREC 1-800-424-9300

All non-emergency questions should be directed to Customer Service (1-214-352-1900)

## SODIUM HYPOCHLORITE SOLUTION

10% - 15% By Volume

### 1. Product Identification

**Synonyms:** Bleach; hypochlorous acid, sodium salt; soda bleach; sodium oxychloride

**CAS No.:** 7681-52-9

**Trade names:** Liqui-Chlor, Petra-Chlor, Petra-Chlor Extra

**Molecular Weight:** 74.44

**Chemical Formula:** NaOCl

### 2. Hazards Identification

**Emergency Overview:**

**DANGER!**

**HARMFUL IF SWALLOWED OR INHALED.**

**CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT.**

**CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.**

**Onset of symptoms may be delayed following exposure.**



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## Potential Health Effects

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**Inhalation:**

May cause irritation to the respiratory tract, (nose and throat); symptoms may include coughing and sore throat.

**Ingestion:**

May cause nausea, vomiting.

**Skin Contact:**

May irritate skin.

**Eye Contact:**

Contact may cause severe irritation and damage, especially at higher concentration.

**Chronic Exposure:**

A constant irritant to the eyes and throat. Low potential for sensitization after exaggerated exposure to damaged skin.

**Aggravation of Pre-existing Conditions:**

Persons with impaired respiratory function, or heart disorders (or disease) may be more susceptible to the effects of the substance.

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## 3. Product Ingredients

Components:		Percentage (% By Volume)
<b>Sodium Hypochlorite</b>		10% - 15%
CAS Number:	7681-52-9	
GHS Classification:	Corrosive 1B, STOT-SE 3, Acute Aquatic 1; H314, H335, H400	
<b>Sodium Hydroxide</b>		0.3 - 5
CAS Number:	1310-73-2	
GHS Classification:	Corrosive 1B, STST-SE 3, H314, H335	
<b>Water</b>		Balance
CAS Number:	7732-18-5	
GHS Classification:	Not considered hazardous according to GHS criteria	

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## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get

medical attention immediately.

**Ingestion:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Note to Physician:**

The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. Do not administer neutralizing substances since the resultant exothermic reaction could further damage tissue. Endotracheal intubation could be needed if glottic edema compromises the airway. For individuals with significant inhalation exposure, monitor arterial blood gases and chest x-ray.

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## 5. Fire Fighting Measures

**NFPA 704 Ratings:** Health 2 Flammability 0 Reactivity 1 Other Hazards: Corrosive

**Fire:**

Not considered to be a fire hazard. Substance releases oxygen when heated, which may increase the severity of an existing fire. Containers may rupture from pressure build-up.

**Explosion:**

This solution is not considered to be an explosion hazard. Anhydrous sodium hypochlorite is very explosive.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire. Use water spray to cool fire-exposed containers, to dilute liquid, and control vapor.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

### Airborne Exposure Limits:

OSHA PEL	1 ppm as Cl <sub>2</sub> (TWA)
OSHA STEL	3 ppm as Cl <sub>2</sub>
AIHA (WEEL)	2 mg/m <sup>3</sup> , 15 minute TWA as Cl <sub>2</sub>
ACGIH TLV AND TWA	0.5 ppm as Cl <sub>2</sub>
ACGIH STEL	1ppm as Cl <sub>2</sub>
NIOSH IDLH	Unavailable

### Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a full face piece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

### Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

### Appearance:

Colorless to yellowish liquid.

### Odor:

Chlorine-like odor.

### Solubility:

100% in water.

### Density:

1.07 - 1.14

### pH:

10 - 12 (neutral solution-no excess sodium hydroxide)

% Volatiles by volume @ 21C (70F):

ca. 95

**Boiling Point:**

40C (104F) Decomposes slightly

**Melting Point:**

-6C (21F)

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

17.5 @ 20C (68F)

**Evaporation Rate (BuAc=1):**

No information found.

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## 10. Stability and Reactivity

**Stability:**

Slowly decomposes on contact with air. Rate increases with the concentration and temperature. Exposure to sunlight accelerates decomposition. Sodium hypochlorite becomes less toxic with age.

**Hazardous Decomposition Products:**

Emits toxic fumes of chlorine when heated to decomposition. Sodium oxide at high temperatures.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Ammonia (chloramine gas may evolve), amines, ammonium salts, aziridine, methanol, phenyl acetonitrile, cellulose, ethyleneimine, oxidizable metals, acids (chlorine gas will be released), soaps, and bisulfates.

**Conditions to Avoid:**

Light, heat, incompatibles.

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## 11. Toxicological Information

Acute Oral LD50 in Rats: 8200mg/kg

Acute Dermal LD50 in Rabbits: 10,000 mg/kg

Inhalation LC50: No Data

Not listed on the OSHA, NTP, ACGIH or IARC list of carcinogens or potential carcinogens

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## 12. Ecological Information

**Environmental Fate:**

**BIODEGRADATION:** Degrades slowly to Sodium chloride, Sodium chlorate and Oxygen.

**PERSISTENCE:** This material is believed not to persist in the environment.

**BIOCONCENTRATION:** This material is not expected to bioconcentrate in organisms.

**Environmental Toxicity:**

Highly toxic to aquatic organisms.

**Freshwater Fish Toxicity:**

- LC50 clupea harengus 0.033-0.097 mg/l/96 hr, flow through bioassay (pH: 8)
- LC50 cymatogaster aggregate 0.045 – 0.098 hr, flow through bioassay (pH: 8)
- LC50 gasterosteus aculeatus 0.141 – 0.193 hr, flow through bioassay (pH: 8)
- LC50 oncorhynchus gorbuscha 0.023 – 0.052 hr, flow through bioassay (pH: 8)
- LC50 oncorhynchus kisutch 0.026 – 0.038 hr, flow through bioassay (pH: 8)

**Invertebrate Toxicity:**

- EC50 ceriodaphnia sp. 0.006 mg/l/24 hr
- EC50 daphnia magna 0.07 – 0.7 mg/l/24 hr
- EC50 daphnia magna 2.1 mg/l/96 hr
- EC50 gammarus fasciatus 4 mg/l/96 hr

**Other Toxicity:****Algae:**

- ErC50 dunaliella sp. 0.6 mg/l/24 hr
- ErC50 skeletonema costatum 0.095 mg/l/24 hr

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## 13. Disposal Considerations

Dilute with water and flush to sewer if local ordinances allow, otherwise, whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Do not allow to enter Storm Drains, Lakes, Streams or other bodies of water.

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## 14. Transport Information

**U.S.DOT 49 CFR 172.101:**

**PROPER SHIPPING NAME:** Hypochlorite solutions, 8, UN1791, PGIII

**UN NUMBER:** UN1791

**HAZARD CLASS/DIVISION:** 8

**PACKING GROUP:** III

**LABELING:** 8

**DOT RQ (lbs):** RQ 100 Lbs. (Sodium hypochlorite)

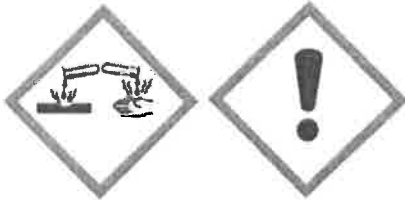
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## 15. Regulatory Information

## UN GHS Classification and Labeling Information

### Classification:

Corrosive 1B  
Specific Exposure Organ Toxicity (STOT)  
Single Exposure 3  
Acute Aquatic



### Signal Word:

**DANGER**

### H Statements:

H314: Causes severe skin burns and eye damage  
H335: May cause respiratory irritation  
H400: Toxic to aquatic life

### P Statements:

P307 + P315: If exposed, get immediate medical attention  
P301 + P330 + P331: If swallowed rinse mouth, do NOT induce vomiting  
P280: Wear protective gloves / protective clothing / eye protection / face protection  
P264: Wash thoroughly after handling  
P273: Avoid release into the environment

### Regulated ingredients:

Sodium hypochlorite (CAS# 7681-52-9)  
Sodium hydroxide (CAS# 1310-73-2)

### OSHA Classification:

**Physical Hazards:** Reactivity

**Health Hazards:** Acute Health Hazard, Corrosive

**TSCA Inventory Listed:** All components are listed in TSCA inventory (40CFR 710)

**CERCLA RQ:** 100 lbs of Sodium hypochlorite

**CERCLA Hazardous Material:** Yes

**SARA Title III, Section 302:** Not listed TPQ: N/A

**SARA Title III, Section 311312:** Acute Health Hazard

**Acute:** Yes **Chronic:** No **Fire:** No **Pressure:** No **Reactivity:** No

**SARA Title III, Section 313:** Not subject to Toxic Chemical Release Inventory Reporting

**RCRA Hazardous Waste:** Not listed as a Hazardous Waste. May be a D002 (Characteristic corrosive) waste based on pH value.

**EPA Clean Air Act:** Not a listed Hazardous Air Pollutant (HAP)

**EPA Clean water Act:** Listed

**EPA FIFRA:** Registered as a pesticide

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## 16. Other Information

### Label Hazard Warning:

**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.**

### Label Precautions:

Avoid contact with eyes, skin and clothing.

Avoid breathing mist.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

### Label First Aid:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

### Product Use:

Bleaching agent, Chemical Intermediate, EPA registered antimicrobial pesticide

### Revision Information:

SDS Section(s) changed since last revision of document include: 16.

### Disclaimer:

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